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ABSTRACT

Presented are data derived from four surveys of academic science/engineering activities. Tables 1-5 include data from the Survey of Scientific and Engineering Expenditures at Universities and Colleges, FY 1982 (research and development expenditures by source of funds, character of work and others). Tables 6-12 include data from the Survey of Federal Support to Universities, Colleges, and Selected Nonprofit Institutions, FY 1982 (federal obligations by type of activity and agency, geographic division, and others). Tables 13-20 include data from the Survey of Scientific Engineering Personnel Employment at Universities and Colleges, January 1983 (scientists/engineers employed by field, institution/status; male/female employment by status; and others). Tables 21-23 include data from the Survey of Graduate Science Engineering Students and Post-doctorates, Fall 1982 (science/engineering students by field, highest degree granted, sex, and others). In the expenditures, personnel, and graduate student surveys, data are submitted by institutions of higher education; data on federal obligations to academic institutions are collected directly from the major funding agencies. The four surveys include different proportions of the higher education universe, depending on the degree of concentration of the variables being examined. (JN)

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EARLY RELEASE OF
SUMMARY STATISTICS
ON
ACADEMIC SCIENCE/ENGINEERING
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SUMMARY STATISTICS ON ACADEMIC SCIENCE/ENGINEERING RESOURCES

The data presented in this summary are being released in advance of their publication, and are derived from four surveys of academic science/engineering activities conducted annually by the National Science Foundation's Division of Science Resources Studies, Universities and Nonprofit Institutions Studies Group:

1. Survey of Scientific and Engineering Expenditures at Universities and Colleges, FY 1982 (the Expenditures survey): Tables 1-5.
2. Survey of Federal Support to Universities, Colleges, and Selected Nonprofit Institutions, FY 1982 (the Federal Support Survey): Tables 6-12.
3. Survey of Scientific and Engineering Personnel Employed at Universities and Colleges, January 1983 (the Personnel survey): Tables 13-20.
4. Survey of Graduate Science and Engineering Students and Post-doctorates, Fall 1982 (the Graduate Student survey): Tables 21-28.

In the Expenditures, Personnel, and Graduate Student surveys, data are submitted by institutions of higher education; data on Federal obligations to academic institutions are collected directly from the major funding agencies.

The four surveys include different proportions of the higher education universe, depending on the degree of concentration of the variables being examined. Survey coverage is as follows (numbers of institutions shown represent averages for the last five survey cycles, excluding the 1978 cycle when the expenditures, personnel, and graduate student surveys were mailed to doctorate-granting institutions only):

1. Expenditures Survey: All institutions granting science/ engineering graduate degrees and schools with \$50,000 or more in separately budgeted R&D expenditures (about 550 institutions and their associated FFRDCs).
2. Federal Support Survey: All institutions of higher education in the United States (about 2,600 institutions, their system offices, and their associated FFRDCs).
3. Personnel Survey: All institutions of higher education with science/engineering programs (about 2,200 institutions and their associated FFRDCs).
4. Graduate Student Survey: All institutions granting science/ engineering degrees and their affiliated medical schools (about 600 institutions).

For further information on the academic science/engineering surveys, please contact NSF staff responsible for each survey system:

Expenditures Survey: Judy Coakley or Marge Machen
Personnel Survey: Judy Coakley or Esther F. Gist
Federal Support Survey: Richard Bennof
Graduate Student Survey: J.G. Huckenpahler

These may all be contacted by telephone at (202) 634-4673. Please call us if you wish to receive the published reports resulting from these surveys.

NOTES

- Data in tables 1-12 cover fiscal years (FY's); data in tables 13-20 are collected as of January in each year; data in tables 21-28 are collected as of Fall in each year.
- During the 1978-79 survey cycle, an attempt was made in the Expenditures, Personnel, and Graduate Student surveys to collect some data items on a short form mailed to doctorate-granting institutions only. FY 1978 expenditures data, January 1979 personnel data, and Fall 1978 graduate student data are therefore unavailable at the universe level, although an estimate was made for total FY 1978 expenditures at non-doctorate-granting institutions. In addition, no 1978 data are available for those items excluded from the short forms -- e.g., capital expenditures, full-time-equivalent scientists and engineers, and support mechanisms of graduate students. These data gaps are indicated on the tables. The Federal Support survey, however, continued to request data on all institutions receiving funding from the participating agencies.
- Data presented in these tables are assembled from the most recently completed surveys and represent the latest totals available as of December 1983. Since both current-year and prior-year data are regularly reviewed and updated in consultation with agency and institutional respondents, the figures are subject to revision in subsequent years.
- N/A means "not available"; N.E.C. means "not elsewhere classified."

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TABLE 1 -- R&D EXPENDITURES AT UNIVERSITIES AND COLLEGES, BY SOURCE OF FUNDS, CHARACTER OF WORK, AND SCIENCE/ENGINEERING FIELD: FISCAL YEARS 1975-82

(DOLLARS IN THOUSANDS)

SOURCE, CHARACTER, AND FIELD	1975	1976	1977	1978 1/	1979	1980	1981	1982
TOTAL	3,408,691	3,729,007	4,066,953	4,624,673	5,361,408	6,060,118	6,818,343	7,260,637
SOURCE OF FUNDS:								
FEDERAL GOVERNMENT	2,288,070	2,511,867	2,726,126	3,058,734	3,595,271	4,093,586	4,559,049	4,749,264
STATE AND LOCAL GOVERNMENTS ..	331,646	363,746	373,943	414,389	470,073	493,649	540,050	585,559
INDUSTRY	112,952	123,145	138,807	169,623	192,753	235,522	287,550	325,594
INSTITUTIONAL FUNDS	417,425	445,590	514,275	622,646	729,731	828,774	983,445	1,097,602
ALL OTHER SOURCES	258,598	284,659	313,802	359,281	373,580	408,587	448,249	502,618
CHARACTER OF WORK: 2/								
BASIC RESEARCH	2,409,777	2,548,820	2,799,649	-	3,612,278	4,026,180	4,576,230	4,850,953
APPLIED RESEARCH AND DEVELOPMENT	998,914	1,180,187	1,267,304	-	1,749,130	2,033,938	2,242,113	2,409,684
FIELD:								
ENGINEERING 3/.....	380,912	431,727	498,473	601,062	768,407	864,040	959,989	1,024,514
AERONAUTICAL AND ASTRONAUTICAL	-	-	-	-	-	46,286	45,523	60,645
CHEMICAL	-	-	-	-	-	67,559	83,215	83,265
CIVIL	-	-	-	-	-	88,604	108,189	108,288
ELECTRICAL	-	-	-	-	-	183,727	192,796	224,326
MECHANICAL	-	-	-	-	-	145,621	148,585	141,513
OTHER, N.E.C.	-	-	-	-	-	332,243	381,681	406,477
PHYSICAL SCIENCES	350,278	379,379	423,457	496,399	601,904	677,604	766,504	822,844
ASTRONOMY	26,607	26,294	32,361	36,782	48,459	56,741	67,391	73,296
CHEMISTRY	120,710	140,142	159,353	183,131	206,421	244,454	285,520	311,452
PHYSICS	173,510	183,050	201,655	235,099	292,033	322,057	356,944	363,263
OTHER, N.E.C.	29,451	29,893	30,088	41,387	54,991	52,352	56,649	74,833
ENVIRONMENTAL SCIENCES 3/.....	255,060	288,531	319,398	379,391	452,915	509,166	551,881	560,144
ATMOSPHERIC	-	-	-	-	-	68,361	78,351	85,705
EARTH SCIENCES	-	-	-	-	-	186,047	191,854	195,712
OCEANOGRAPHY	-	-	-	-	-	173,455	187,398	198,253
OTHER, N.E.C.	-	-	-	-	-	81,303	94,278	80,474
MATHEMATICAL/COMPUTER SCIENCES	85,306	86,994	107,875	126,178	176,398	192,736	222,028	244,466
MATHEMATICS	39,713	42,491	52,312	58,756	78,477	78,585	89,008	96,121
COMPUTER SCIENCES	45,593	44,503	55,563	67,422	97,921	114,151	133,020	148,345
LIFE SCIENCES	1,900,837	2,101,695	2,258,806	2,538,004	2,832,523	3,217,773	3,672,257	3,969,808
AGRICULTURAL SCIENCES	383,841	412,867	460,647	521,745	602,485	679,304	771,534	838,355
BIOLOGICAL SCIENCES	630,166	710,724	772,290	808,500	914,806	1,031,037	1,188,498	1,289,910
MEDICAL SCIENCES	811,383	897,376	950,907	1,128,652	1,237,556	1,414,356	1,599,409	1,721,004
OTHER, N.E.C.	75,447	80,728	74,962	79,107	77,676	93,076	112,816	120,539
PSYCHOLOGY	80,327	77,888	85,133	89,664	100,531	111,177	128,560	131,856
SOCIAL SCIENCES	256,116	262,261	268,087	277,497	295,138	341,551	372,195	354,035
ECONOMICS	55,949	65,447	72,124	79,129	83,089	90,162	99,711	94,735
POLITICAL SCIENCE	29,382	28,355	32,314	36,571	45,431	55,450	56,695	60,782
SOCIOLOGY	68,758	66,246	61,939	66,900	74,641	88,548	94,986	79,513
OTHER, N.E.C.	102,027	102,213	101,710	94,897	91,977	107,391	120,803	119,005
OTHER SCIENCES, N.E.C.	99,855	100,532	105,724	116,478	133,592	146,071	144,929	152,970

1/ ESTIMATED, BASED ON DATA COLLECTED FROM DOCTORATE-GRANTING INSTITUTIONS ONLY.

2/ DATA WERE NOT COLLECTED IN 1978.

3/ DETAIL NOT SEPARATELY AVAILABLE PRIOR TO 1980.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 2 -- R&D EXPENDITURES AT UNIVERSITIES AND COLLEGES
BY GEOGRAPHIC DISTRIBUTION AND SOURCE OF FUNDS: FISCAL YEAR 1982

(DOLLARS IN THOUSANDS)

DIVISION AND STATE	TOTAL	FEDERAL GOVERNMENT	STATE AND LOCAL GOVERNMENTS	INDUSTRY	INSTITUTIONAL FUNDS	ALL OTHER SOURCES
TOTAL, ALL INSTITUTIONS ...	7,260,637	4,749,264	585,559	325,594	1,097,602	502,618
NEW ENGLAND	732,073	559,411	20,871	37,044	52,613	62,134
CONNECTICUT	152,201	113,484	4,065	2,687	20,481	11,484
MAINE	19,221	8,331	3,094	1,181	5,626	989
MASSACHUSETTS	469,717	368,394	5,946	29,098	20,208	46,046
NEW HAMPSHIRE	27,687	19,568	1,593	473	3,493	2,560
RHODE ISLAND	44,349	36,745	4,700	2,236	468	200
VERMONT	18,903	12,889	1,473	1,369	2,337	835
MIDDLE ATLANTIC	1,189,613	807,983	44,818	57,903	166,021	112,888
NEW JERSEY	105,077	61,513	8,483	4,007	23,438	7,636
NEW YORK	739,904	506,593	31,622	27,867	99,936	73,884
PENNSYLVANIA	344,632	279,877	4,713	26,029	42,647	31,366
EAST NORTH CENTRAL	1,025,479	655,031	87,702	45,567	159,766	77,413
ILLINOIS	282,523	190,779	11,978	5,850	51,084	22,832
INDIANA	123,427	81,978	9,746	10,096	16,616	4,991
MICHIGAN	224,445	131,503	16,835	13,411	49,814	14,882
OHIO	204,106	134,120	16,105	11,010	20,050	22,821
WISCONSIN	188,978	116,651	33,038	5,200	22,202	11,887
WEST NORTH CENTRAL	535,735	278,114	75,011	18,855	132,416	31,339
IOWA	111,011	57,080	15,838	3,721	29,699	4,673
KANSAS	56,449	24,666	19,168	1,011	8,251	2,953
MINNESOTA	146,885	83,223	15,412	4,764	32,821	10,665
MISSOURI	130,182	80,659	9,774	4,749	25,268	9,732
NEBRASKA	53,096	18,701	1,742	2,055	28,315	2,283
NORTH DAKOTA	26,433	9,904	12,460	1,330	2,535	204
SOUTH DAKOTA	11,679	3,881	617	825	5,527	829
SOUTH ATLANTIC	1,111,453	774,779	77,492	48,572	166,824	43,686
DELAWARE	17,875	9,540	655	1,102	5,450	1,128
DISTRICT OF COLUMBIA	62,709	47,344	493	2,452	7,198	5,222
FLORIDA	167,905	87,916	9,325	8,889	52,602	9,173
GEORGIA	170,495	86,935	4,667	16,195	60,196	2,502
MARYLAND	350,946	321,067	6,082	1,411	9,448	12,938
NORTH CAROLINA	165,723	116,968	30,663	4,527	8,275	5,290
SOUTH CAROLINA	47,910	25,589	911	3,364	16,625	1,421
VIRGINIA	106,073	68,592	16,625	9,914	6,642	4,300
WEST VIRGINIA	21,817	10,928	8,071	718	388	1,712
EAST SOUTH CENTRAL	248,513	137,334	43,387	15,106	42,035	10,651
ALABAMA	70,778	46,476	9,804	4,208	5,961	3,329
KENTUCKY	48,104	20,160	10,101	3,645	13,692	506
MISSISSIPPI	50,203	17,914	14,930	2,206	12,654	2,499
TENNESSEE	79,428	52,784	8,552	5,047	8,728	4,317
WEST SOUTH CENTRAL	637,753	321,213	96,928	32,082	134,622	52,908
ARKANSAS	35,948	12,382	9,664	1,749	10,273	1,880
LOUISIANA	97,505	36,440	29,302	5,059	21,846	4,858
OKLAHOMA	70,984	25,273	2,681	4,459	37,861	670
TEXAS	433,316	247,118	55,281	20,775	66,642	45,500
MOUNTAIN	465,261	302,213	52,773	34,173	51,996	24,106
ARIZONA	101,075	52,395	18,202	9,510	15,609	5,359
COLORADO	136,939	101,841	8,640	10,885	8,713	6,860
IDAHO	17,865	12,625	1,788	1,630	1,146	676
MONTANA	20,272	9,639	5,825	1,354	3,454	0
NEVADA	18,440	8,975	352	2,588	5,757	768
NEW MEXICO	74,086	53,385	7,452	3,431	3,911	5,907
UTAH	81,962	56,034	10,210	3,463	7,740	4,515
WYOMING	14,622	7,319	304	1,312	5,666	21
PACIFIC	1,288,737	900,522	79,783	36,274	184,750	87,408
ALASKA	38,218	19,055	3,242	2,882	12,492	547
CALIFORNIA	946,762	677,912	22,802	19,411	159,631	66,916
HAWAII	43,439	26,616	14,376	260	1,445	742
OREGON	89,975	53,485	14,719	5,483	9,560	6,728
WASHINGTON	170,343	123,454	24,554	8,238	1,622	12,475
OUTLYING AREAS	26,020	12,564	6,794	18	6,559	85

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 3 -- TOTAL AND FEDERALLY FINANCED R&D EXPENDITURES AT
UNIVERSITIES AND COLLEGES: FISCAL YEARS 1979-82

INSTITUTIONS RANKED BY TOTAL R&D EXPENDITURES (1982)	(DOLLARS IN THOUSANDS)							
	1982	1981	TOTAL 1980	1979	1982	FEDERALLY FINANCED 1981	1980	1979
TOTAL, ALL INSTITUTIONS	7,260,637	6,818,343	6,060,118	5,361,408	4,749,264	4,559,049	4,093,586	3,595,271
1 JOHNS HOPKINS UNIVERSITY 1/	289,940	270,490	257,204	237,725E	271,223	256,535	239,855	224,216E
2 MASS INST OF TECHNOLOGY 2/	192,462	184,335	163,566	141,596	157,191	152,372	138,400	120,971
3 UNIV OF MICHIGAN 2/	157,520	147,535	138,196	122,213	101,019	96,240	89,331	78,082
4 STANFORD UNIVERSITY 2/	147,941	129,832	113,120	101,681	120,099	116,682	102,645	91,511
5 UNIVERSITY OF MINNESOTA	146,466	133,057	119,065	106,077	83,044	77,850	68,463	61,150
6 CORNELL UNIVERSITY 2/	145,769	123,275	107,611	100,295	90,538	81,903	70,583	67,001
7 UNIV OF CAL SAN DIEGO	138,894	137,835	124,830	107,750	116,200	119,304	111,038	96,375
8 UNIVERSITY OF WASHINGTON	133,115	124,822	111,858	98,967	109,058	103,986	93,109	83,276
9 UNIVERSITY OF MICHIGAN	119,973	133,085	111,316	107,035	74,656	84,342	75,549	67,396
10 COLUMBIA UNIV MAIN DIV	115,734	100,746	101,407	82,831	101,974	85,407	83,729	67,012
TOTAL, 1ST 10 INST.	1,587,814	1,485,012	1,344,173	1,204,170	1,225,002	1,174,621	1,072,702	956,990
11 HARVARD UNIVERSITY	114,941E	111,697E	100,901E	89,008E	87,051	84,594	76,377	67,374
12 UNIV OF PENNSYLVANIA	112,836	104,430	94,198	81,961	81,014	80,373	70,553	58,941
13 UNIV OF CAL LOS ANGELES	103,294	97,314	88,934	75,496	78,222	74,178	70,365	60,102
14 UNIV OF CAL BERKELEY 2/	102,369	98,898	90,377	75,344	67,208	65,877	64,127	53,520
15 UNIV OF ILL URBANA	95,869	93,299	83,274	75,972	57,247	56,616	52,327	44,670
16 UNIV OF CAL SAN FRANCISCO	95,282	89,209	73,426	61,140	75,536	72,522	61,172	51,272
17 UNIV OF TEXAS AT AUSTIN	92,069	82,401	78,621	69,695	52,606	49,477	48,666	45,661
18 TEXAS A & M UNIVERSITY	91,780	84,285	71,461	63,271	37,221	38,452	31,860	28,127
19 YALE UNIVERSITY	91,232	84,444	71,446	63,996	76,217	74,000	63,572	54,970
20 UNIV OF CAL DAVIS	89,784	83,945	68,429	55,799	42,535	39,289	35,078	27,949
TOTAL, 1ST 20 INST.	2,577,270	2,414,934	2,165,240	1,917,852	1,879,859	1,809,999	1,646,799	1,449,576
21 UNIVERSITY OF ARIZONA	88,247	80,726	69,095	58,140	44,113	42,412	35,559	31,426
22 UNIV OF SOUTHERN CAL	87,140	76,834	74,304	59,077	55,101	48,243	50,001	43,939
23 OHIO STATE UNIVERSITY	82,614	78,492	70,652	62,747	45,990	45,929	40,555	35,181
24 PENNSYLVANIA STATE UNIV	82,034	80,194	71,840	64,054	53,023	49,737	45,001	40,859
25 MICHIGAN STATE UNIVERSITY	71,922	68,222	72,354	62,666	38,320	33,224	34,830	27,827
26 GEORGIA INSTITUTE OF TECH	71,402	65,078	56,453	46,366	38,432	36,090	32,827	27,355
27 UNIVERSITY OF CHICAGO 2/	69,018	64,822	58,436	58,917	57,600	56,338	50,118	45,620
28 UNIVERSITY OF FLORIDA	68,370	60,073	56,656E	48,850	33,178	29,215	23,627E	26,040
29 WASHINGTON UNIVERSITY	68,049	62,383	59,379	53,551	55,608	51,712	47,756	42,319
30 PURDUE UNIVERSITY	67,299	73,723	61,765	55,101	41,949	42,757	38,041	33,497
TOTAL, 1ST 30 INST.	3,333,365	3,125,481	2,816,374	2,487,321	2,343,373	2,245,656	2,045,114	1,803,659
31 LOUISIANA STATE UNIV	66,814	60,293	53,058	44,803	18,220	19,165	15,868	13,018
32 UNIVERSITY OF COLORADO	66,377E	66,109E	62,056	47,540	53,985E	52,727E	48,632	35,631
33 NEW YORK UNIVERSITY	66,139	62,226	56,739	54,163	48,503	47,180	43,705	40,621
34 UNIVERSITY OF ROCHESTER 2/	65,547	66,148	65,845	60,067	50,233	45,845	43,890	39,033
35 UNIVERSITY OF GEORGIA	65,161	60,523	55,595	50,042	21,703	20,729	17,953	15,433
36 OREGON STATE UNIVERSITY	56,769	53,077	44,713	39,387	32,308	29,045	24,669	21,238
37 N C STATE UNIV AT RALEIGH	55,781	50,283	42,725	40,000	21,217	18,420	15,611	13,190
38 UNIVERSITY OF IOWA	55,406	50,601	45,032	35,055	38,271	36,279	33,603	25,504
39 IOWA ST U OF SCI & TECH 2/	55,294	52,313	49,459	45,747	18,659	17,916	16,819	15,209
40 UNIVERSITY OF CONNECTICUT	55,109	50,054	44,248	38,964	33,229	31,160	27,510	23,938
TOTAL, 1ST 40 INST.	3,941,762	3,697,108	3,335,844	2,943,089	2,679,701	2,564,122	2,333,374	2,046,484
41 YESHIVA UNIVERSITY	52,235	45,400	42,666	35,093	44,759	40,700	31,540	28,513
42 UNIVERSITY OF MIAMI	51,899	55,512	41,450	39,988	34,090	39,005	29,268	28,829
43 DUKE UNIVERSITY	49,655E	46,407	39,066	36,985	47,238E	41,408	36,165	31,817
44 BAYLOR COL OF MEDICINE	48,661	44,733	37,908	33,676	35,852	34,054	31,211	26,304
45 UNIV OF NC AT CHAPEL HILL	47,711	49,109	38,924	33,501	39,235	39,011	31,580	26,971
46 COLORADO STATE UNIVERSITY	46,641	45,567	40,678	36,945	29,961	30,796	28,488	25,570
47 UNIVERSITY OF PITTSBURGH	46,548	39,166	31,863	30,001	34,772	29,108	23,327	21,700
48 ROCKEFELLER UNIVERSITY	46,172	41,629	38,089	35,643	21,213	20,026	19,290	17,297
49 NORTHWESTERN UNIVERSITY	45,810	43,019	42,617	36,951	32,728	32,345	31,971	28,280
50 UNIV OF NEBRASKA-LINCOLN	44,172	38,824	32,607	30,897	13,890	11,303	10,380	7,925
TOTAL, 1ST 50 INST.	4,421,266	4,146,463	3,721,712	3,292,769	3,013,439	2,881,878	2,606,594	2,289,690

SEE FOOTNOTES AT END OF TABLE.

TABLE 3 -- TOTAL AND FEDERALLY FINANCED R&D EXPENDITURES AT
UNIVERSITIES AND COLLEGES: FISCAL YEARS 1979-82

- CONTINUED

INSTITUTIONS RANKED BY TOTAL R&D EXPENDITURES (1982)	(DOLLARS IN THOUSANDS)					FEDERALLY FINANCED		
	1982	TOTAL 1981	1980	1979	1982	1981	1980	1979
51 CALIFORNIA INST OF TECH 2/	44,048	47,255	43,259	36,996	39,382	41,915	38,330	32,602
52 UNIVERSITY OF UTAH	43,765	42,632	37,175	35,865	35,019	35,319	31,588	30,205
53 UNIV OF HAWAII-MANOA	43,439	42,997	40,293	35,703	26,616	25,153	25,833	22,500
54 CASE WESTERN RESERVE UNIV	43,129	42,791	40,688	35,535	34,047	32,864	29,721	25,290
55 RUTGERS THE ST UNIV OF NJ	42,938	40,279	36,335	33,280	18,643	18,943	16,159	14,507
56 INDIANA UNIVERSITY	42,558	34,125	30,307	27,397	28,663	25,644	22,278	20,804
57 UNIV OF MISSOURI COLUMBIA	40,978	40,703	34,620	33,573	15,604	15,934	13,603	13,017
58 U TEXAS SYSTEM CANCER CTR	40,369	39,205	34,920	34,715	17,560	19,075	18,471	19,708
59 VA POLYTECH INST & ST U	39,909	37,933	33,604	29,223	17,967	18,490	16,380	13,678
60 OKLAHOMA STATE UNIVERSITY	39,472	33,782	23,417	20,332	10,991	7,672	11,107	5,268
TOTAL, 1ST 60 INSTS.	4,841,871	4,548,165	4,076,630	3,615,408	3,257,931	3,122,887	2,830,064	2,487,269
61 UNIVERSITY OF KENTUCKY	38,907	35,755	30,013	29,683	15,010	13,965	13,093	12,643
62 UNIV OF ALASKA FAIRBANKS	38,218	36,652	42,154	36,947	19,055	18,995	26,587	25,431
63 CARNEGIE-MELLON UNIV	37,316	36,810	29,308	24,779	26,583	19,645	15,982	15,982
64 PRINCETON UNIVERSITY 2/	36,641	33,069	27,821	26,121	26,542	25,464	20,895	19,230
65 MISSISSIPPI STATE UNIV	36,582	33,684	29,035	26,054	9,560	9,833	8,824	7,445
66 SUNY AT STONY BROOK	36,468	32,216	26,183	23,500	24,904	23,256	18,460	16,734
67 UNIV ALABAMA BIRMINGHAM	35,792	33,904	30,959	27,089	30,234	29,118	25,171	22,407
68 UNIV OF CAL RIVERSIDE	35,539	34,416	24,961	21,568	11,217	11,133	8,862	7,456
69 KANS ST U - AG & APP SCI	34,806	32,049	27,793	24,539	10,928	9,884	8,677	7,469
70 NEW MEXICO STATE UNIV	34,650	32,999	25,618	19,601	24,066	25,122	21,718	16,457
TOTAL, 1ST 70 INSTS.	5,206,790	4,889,719	4,370,475	3,875,289	3,458,625	3,316,240	3,001,996	2,638,523
71 WASHINGTON STATE UNIV	34,257	31,831	31,538	26,160	12,961	11,298	11,855	10,916
72 UNIV OF MD COLLEGE PARK	34,251	45,230	39,917	33,578	27,521	26,394	23,174	21,309
73 UTAH STATE UNIVERSITY	33,822	28,149	24,611	17,726	19,123	16,328	14,819	11,077
74 WOODS HOLE OCEANOGRAPHIC INST	33,725	33,902	29,209	28,004	29,002	28,740	25,042	24,714
75 UNIVERSITY OF VIRGINIA	33,661	30,924	27,297	23,086	26,892	26,119	23,606	20,101
76 U TEX HLTH SCI CTR DALLAS	32,058	29,868	26,586	22,613	25,121	23,890	20,871	17,872
77 UNIV OF CAL IRVINE	31,456	29,917	23,303	17,759	26,234	24,570	20,211	14,765
78 UNIVERSITY OF NEW MEXICO	30,977	25,271	24,242	25,525	21,968	18,862	19,024	17,246
79 BOSTON UNIVERSITY	30,603	28,917	24,393	21,190	27,374	26,036	22,238	19,050
80 CUNY MT SINAI SCH OF MED	29,797	28,794	26,718	23,130	21,496	23,358	21,182	17,886
TOTAL, 1ST 80 INSTS.	5,531,397	5,202,522	4,648,289	4,114,060	3,696,317	3,541,835	3,204,018	2,813,459
81 UNIVERSITY OF OKLAHOMA	29,785	32,006	23,019	13,726	13,523	14,206	12,181	9,219
82 UNIV OF MASS AT AMHERST	28,887	24,477	16,624	19,807	16,053	14,418	9,871	12,084
83 UNIVERSITY OF CINCINNATI	28,573	31,262	28,991	24,969	20,060	17,900	16,041	13,474
84 SUNY AT BUFFALO	27,800	28,029	23,437	22,020	18,375	18,651	15,664	14,490
85 UNIV OF ARK FAYETTEVILLE	26,653	21,442	21,126	20,779	6,827	3,321	2,902	2,633
86 VANDERBILT UNIVERSITY	24,993	23,919	20,570	18,019	19,649	19,290	16,498	14,350
87 CLEMSON UNIVERSITY	23,552	19,559E	18,366	17,181	9,196	6,290	5,847	4,997
88 GEORGE WASHINGTON UNIV	23,334	17,248	18,961	19,133	19,140	14,610	16,780	16,448
89 AUBURN UNIVERSITY	23,256	22,711	20,248	20,671	7,473	7,476	6,969	6,248
90 UNIV OF RHODE ISLAND	23,000E	21,968	16,932E	15,678	18,400E	19,428	13,847	12,821
TOTAL, 1ST 90 INSTS.	5,791,230	5,445,143	4,856,563	4,306,043	3,845,013	3,677,425	3,320,618	2,920,223
91 FLORIDA STATE UNIVERSITY	22,877	22,703	21,497	16,567	10,385	9,682	8,501	7,210
92 VIRGINIA COMMONWLTN UNIV	22,385	20,286	18,119	14,966	18,852	16,894	14,675	12,112
93 WAYNE STATE UNIVERSITY	21,542	22,569	20,818	19,840	12,903	13,192	12,196	12,257
94 TEMPLE UNIVERSITY	21,503	18,283	18,613	17,340	15,541	14,102	13,684	12,973
95 EMORY UNIVERSITY	21,423	18,784	15,725	14,546	18,015	15,843	13,558	12,872
96 BROWN UNIVERSITY	21,331	19,255	17,950	14,533	18,345	17,062	15,375	12,312
97 WEST VIRGINIA UNIVERSITY	21,080	19,553	17,510	15,377	10,476	10,717	9,225	8,803
98 UNIVERSITY OF KANSAS	20,534	22,032	19,869	17,374I	13,422	19,196	16,676	9,568I
99 RENSSELAER POLYTECH INST	20,302	18,816	14,824	10,963	11,766	11,062	9,192	7,709
100 SYRACUSE UNIVERSITY	19,442	17,938	16,517	13,099	9,823	9,507	8,626	7,339
TOTAL, 1ST 100 INSTS.	6,003,649	5,645,362	5,038,005	4,460,648	3,984,541	3,814,682	3,442,328	3,023,378

SEE FOOTNOTES AT END OF TABLE.

TABLE 3 -- TOTAL AND FEDERALLY FINANCED R&D EXPENDITURES AT
UNIVERSITIES AND COLLEGES: FISCAL YEARS 1979-82

- CONTINUED

INSTITUTIONS RANKED BY TOTAL R&D EXPENDITURES (1982)	(DOLLARS IN THOUSANDS)					FEDERALLY FINANCED		
	1982	TOTAL 1981	1980	1979	1982	1981	1980	1979
101 U TEX HLTH SCI CTR S ANTO	19,341	17,251	13,972	11,535	13,319	11,887	10,158	8,152
102 TULANE UNIVERSITY	19,271	18,984	12,426	11,754	10,678	10,332	7,990	7,557
103 GEORGETOWN UNIVERSITY	18,888	19,681	17,502	15,265	12,004	11,185	9,558	8,906
104 UNIVERSITY OF DAYTON	18,612	20,357	19,678	17,282	16,226	19,027	17,988	15,068
105 UNIV OF MAINE OROMO	18,599	17,342	14,339	12,320	8,149	7,548	5,825	6,527
106 UNIV OF VT & ST AGRIC COL	18,575	18,428	15,685	13,887	12,889	13,404	11,640	10,087
107 U TEX HLTH SCI CTR HOUSTN	18,281	14,256	11,340	7,965	14,620	11,215	8,811	6,126
108 U TEX MED BRNCH GALVESTN	18,272	17,612	16,041	13,835	10,632	11,349	10,387	8,702
109 NORTH DAKOTA STATE UNIV	18,101	15,086	12,984	10,792	4,428	3,622E	2,893	2,607
110 UNIVERSITY OF DELAWARE	17,875	17,202	16,746	14,363	9,540	9,413	9,180	8,117
TOTAL, 1ST 110 INSTS.	6,189,464	5,821,561	5,188,718	4,589,646	4,097,026	3,923,664	3,536,758	3,105,227
111 UNIV OF ILL MED CTR CHGO	17,485I	16,453	14,644	11,929	12,814I	12,318	10,329	8,831
112 UNIVERSITY OF DENVER	17,333	17,514	14,743	16,322	12,505	12,416	10,786	12,342
113 UNIVERSITY OF IDAHO	17,272	20,127	13,721	12,832	12,127	8,849	6,402	5,711
114 THE OREG HLTH SCI UNIV	16,954	11,497	12,854	10,459E	9,219	7,933E	8,836	8,519E
115 COL OF MED & DENT OF N J	16,123	14,589	12,394	9,897	11,115	10,207	9,095	6,337
116 MONTANA STATE UNIVERSITY	15,333	15,465	13,737	12,478	6,916	7,745	6,504	5,120
117 UNIVERSITY OF WYOMING	14,622	13,469	11,049	9,768	7,319	6,849	6,233	5,798
118 UNIV OF P R-MAYAGUEZ	14,611I	13,749I	12,162	11,306	5,624I	5,406I	4,889	4,634
119 INST OF AGRI UNIV OF TENN	14,545	14,437	15,711I	13,750I	5,155	6,295	6,878I	5,942I
120 DARTMOUTH COLLEGE	14,525	15,778	9,578	8,701	12,010	12,028	8,451	7,707
TOTAL, 1ST 120 INSTS.	6,348,267	5,974,639	5,319,311	4,707,088	4,191,830	4,013,710	3,615,161	3,176,168
121 SUNY UPSTATE MEDICAL CTR	14,476	6,345E	6,345E	5,875	5,232	4,029E	4,029E	3,731
122 U OF HOUSTON CENTRAL CAM	13,932	14,430	12,628	11,924	6,659	7,284	6,154	5,320
123 LEHIGH UNIVERSITY	13,679	10,608	9,413	8,468	6,447	5,830	5,131	4,377
124 BRANDEIS UNIVERSITY	13,654	11,617	9,566	9,230	10,487	10,441	8,854	8,683
125 UNIV OF MD BALT PROF SCH	13,553I	12,753	15,088	12,000	12,224I	11,750	13,322	10,852
126 TEXAS TECH UNIVERSITY	13,261	13,784	13,032	12,075	5,345	6,275	6,363	5,617
127 UNIV OF SOUTH CAROLINA	13,249	7,460I	6,599E	6,346	7,561	5,356I	4,844E	4,658
128 TUFTS UNIVERSITY	13,177I	12,254E	11,783	8,921E	10,937I	10,461E	10,059	6,346E
129 UNIV OF NEW HAMPSHIRE	13,162	11,673	10,112	9,189	7,558	7,208	6,189	5,378
130 UNIV OF CAL SANTA BARBARA	13,102	12,220	13,967	12,036	10,633	10,596	11,078	9,579
TOTAL, 1ST 130 INSTS.	6,483,512	6,087,783	5,427,844	4,803,152	4,274,913	4,092,940	3,691,184	3,240,709
131 U TENNESSEE KNOXVILLE	12,822	16,489	12,742E	12,742	10,309	12,549	9,169E	9,169
132 MEDICAL COLLEGE OF WIS	12,741I	11,849I	10,655	8,482	7,741I	7,404I	6,664	5,239
133 UNIV OF ILL CHICAGO CIR	12,662	9,228	8,918	7,759	7,670	6,011	5,722	5,053
134 SUNY DOWNSTATE MED CTR	12,510	13,533	10,799	10,357	8,467	9,219	7,358	7,752
135 UNIVERSITY OF NOTRE DAME	12,472	12,628	8,845	6,935	11,083	11,441	7,816	5,944
136 ST JOHN'S UNIVERSITY (NY)	11,750	10,587	8,519	8,081	170	175	636	554
137 ARIZONA STATE UNIVERSITY	11,511	9,707	6,938	8,086	7,840	8,267	5,939	4,491
138 UNIV OF NEVADA - RENO	11,441	5,389	7,811	6,158	5,187	3,747	3,486	2,456
139 TENNESSEE STATE UNIV	11,372	10,329	6,70E	-	6,830	6,198	0	-
140 HOWARD UNIVERSITY	11,244	9,515	11,658	6,442	9,178	7,332	8,172	4,942
TOTAL, 1ST 140 INSTS.	6,604,037	6,197,037	5,515,399	4,878,194	4,349,388	4,165,283	3,746,146	3,286,309
141 ALBANY MEDICAL COLLEGE	11,197	12,166	11,420	10,221	7,251	5,678	5,351	5,434
142 UNIV OF CAL SANTA CRUZ	11,094	10,081	7,844	6,599	7,240	6,957	5,823	4,756
143 RUSH UNIVERSITY	10,864	10,315	8,815	7,914	7,108	6,268	6,195	5,528
144 UNIVERSITY OF OREGON MAIN	10,504	9,812	9,104	7,951	8,263	8,300	7,893	6,573
145 UNIVERSITY OF MISSISSIPPI	9,912E	10,065	7,976	6,953E	5,514E	5,963	4,221	3,690E
146 U MASS MED SCHL WORCESTER	9,886	7,616	3,676	4,866	6,731	5,200	2,404	3,492
147 RICE UNIVERSITY	9,861E	9,391	8,029	7,374I	7,560E	7,200	6,184	5,825I
148 MED UNIV OF SO CAROLINA	9,655	8,930	8,615	6,205	7,420	6,950	6,774	5,395
149 SOUTHERN ILL U-CARBONDALE	9,387	8,786	6,589	5,196	3,943	4,178	3,044	1,970
150 THOMAS JEFFERSON UNIV	9,345	10,265	9,532E	9,254	6,982	7,680	7,739E	7,514
TOTAL, 1ST 150 INSTS.	6,705,742	6,294,464	5,596,999	4,950,727	4,417,400	4,229,657	3,801,774	3,336,486

SEE FOOTNOTES AT END OF TABLE.

TABLE 3 -- TOTAL AND FEDERALLY FINANCED R&D EXPENDITURES AT
UNIVERSITIES AND COLLEGES: FISCAL YEARS 1979-82

- CONTINUED

INSTITUTIONS RANKED BY TOTAL R&D EXPENDITURES (1982)	(DOLLARS IN THOUSANDS)							
	1982	TOTAL		1979	1982	FEDERALLY FINANCED		1979
		1981	1980			1981	1980	
151 SUNY AT ALBANY	8,800	9,137	6,711E	6,058	6,700	7,084	5,206	4,384
152 MICHIGAN TECH UNIVERSITY	8,772	8,511	8,483	7,148	3,431	3,465	3,193	2,834
153 UNIV TENN CTR HEALTH SCI	8,749	9,369	9,529	8,157	6,995	7,831	8,182	6,440
154 SOUTH DAKOTA STATE UNIV	8,722	7,941	8,129	7,155	2,243	2,739	3,370	2,814
155 UNIVERSITY OF N DAKOTA	8,332	5,629I	4,979E	4,632I	5,476	4,418I	3,996E	3,700I
156 US NAVAL POSTGRAD SCHOOL	7,956	6,650	6,314	5,846	7,853	6,596	6,246	5,802
157 N MEX INST MINING & TECH	7,749	8,108	7,312	5,413	4,814	5,226	5,011	3,603
158 UNIV OF WIS-MILWAUKEE	7,586	7,538	7,029	7,406	3,192	3,458	3,705	3,739
159 UNIV OF MISSOURI ROLLA	7,471	7,613	6,421	5,419	3,241	3,801	3,064	2,486
160 U OF CAL SYS WIDE PRGMS	7,388	7,583	5,568	4,214	566	568	656	477
TOTAL, 1ST 160 INSTS.	6,787,267	6,372,543	5,667,474	5,012,175	4,461,911	4,274,843	3,844,403	3,372,965
161 UNIVERSITY OF LOUISVILLE	7,294	6,520	6,489	6,397	3,949	4,029	4,184	3,394
162 MEDICAL COL OF GEORGIA	7,140	6,419	5,476	5,065	6,304	5,956	5,123	4,752
163 NORTHEASTERN UNIVERSITY	6,889	6,124	5,669I	5,036	5,356	4,398	4,742I	4,179
164 WAKE FOREST UNIVERSITY	6,742I	6,270E	5,972E	5,645E	5,366I	5,132E	4,888E	4,620E
165 HAHNEMANN MED COL & HOSP	6,659	5,361	4,451	3,936	5,641	4,593	3,520	2,946
166 UNIV OF SOUTH FLORIDA	6,600	6,302	4,771	4,267	3,965	3,552	2,759	2,467
167 WRIGHT STATE UNIVERSITY	6,521	6,576	4,923	4,798	4,025	3,867	3,365	3,238
168 U OF NEB MED CTR AT OMAHA	6,483	6,959	7,419	7,154	3,810	4,753	5,213	4,935
169 ST LOUIS UNIVERSITY	6,479I	6,025E	6,695E	6,695	4,835I	4,625E	5,139E	5,139
170 SUN. JOL OF ENV SCI & FOR	6,290I	5,919	5,699	5,998	1,805I	1,735	1,686	1,666
TOTAL, 1ST 170 INSTS.	6,854,364	6,435,018	5,725,038	5,067,166	4,506,967	4,317,483	3,885,022	3,410,301
171 UNIV OF TEXAS AT DALLAS	6,221	5,823	6,288	6,095	4,338	4,017	4,223	4,639
172 BOSTON COLLEGE	6,151	5,834	5,430	4,225	5,989	5,182	4,818	3,587
173 SAN DIEGO STATE UNIV	6,041	4,619	4,417	4,527	4,494	3,893	3,556	3,451
174 NEW YORK MEDICAL COLLEGE	6,026	6,212	5,233E	5,233	4,995	5,218	4,363E	4,363
175 COLORADO SCHOOL OF MINES	5,897	5,676	4,510	2,897I	4,907	4,424	3,741	2,018I
176 THE MEDICAL COL OF PENNA	5,867	3,966	2,651	2,716	3,470	3,317	2,381	2,400
177 INSTITUTE PAPER CHEMISTRY	5,856	5,646	3,664E	3,476	1,219	1,228	48E	46
178 NORTH TEXAS STATE UNIV	5,811	4,226	3,456E	3,307	3,669	2,589	1,970E	1,859
179 DESERT RESEARCH INSTITUTE	5,798	6,165	5,443	5,799	2,821	2,856	2,604	2,581
180 MED COL OF OHIO AT TOLEDO	5,698I	5,362E	5,362	4,405	4,083I	3,925E	3,925	3,460
TOTAL, 1ST 180 INSTS.	6,913,730	6,488,547	5,771,492	5,109,846	4,546,952	4,354,132	3,916,651	3,438,705
181 U OF ARKANSAS MED SCI CAM	5,696	4,911	5,511	4,573	3,932	3,801	4,275	3,704
182 SUNY AT BINGHAMTON	5,636	4,232	4,504	3,173	4,001	3,933	3,264	2,244
183 SAN JOSE STATE UNIVERSITY	5,586	2,380	1,762I	1,532E	3,964	1,678	1,289I	1,146E
184 UNIV OF WEST FLORIDA	5,552	6,650	4,333	2,668	1,651	3,378	1,967	1,303
185 UNIV OF CENTRAL FLORIDA	5,441	5,468	5,582	3,352	1,768	2,666	2,853	2,485
186 OHIO UNIVERSITY	5,400	4,164	3,187	2,608	2,140	2,134	1,600	1,476
187 ILLINOIS INST OF TECH	5,202	4,476	3,010I	2,674	4,347	3,906	1,962I	1,729
188 DREXEL UNIVERSITY	5,192	5,726	5,367	4,086	3,636	4,032	3,960	2,973
189 POLYTECHNIC INST OF N Y	5,184	5,319	6,814E	6,380	3,979	4,739	4,584E	4,292
190 WESLEYAN UNIVERSITY	5,179I	4,816	1,956E	1,956	3,760I	3,596	1,296E	1,296
TOTAL, 1ST 190 INSTS.	6,967,798	6,537,689	5,813,518	5,142,848	4,580,130	4,387,995	3,943,701	3,461,353
191 STEVENS INSTITUTE OF TECH	4,691	4,014	4,130	3,580	2,911	2,274	2,460	2,006
192 CUNY CITY COLLEGE	4,665	4,814	3,565	2,635	4,414	4,466	3,299	2,341
193 UNIF SERV UNIV OF HLTH SC	4,645	3,688	2,853	1,004	4,645	3,688	2,853	1,004
194 LOYOLA UNIV - CHICAGO	4,455	4,098	3,532I	3,138E	2,652	2,966	2,834I	2,498E
195 BRIGHAM YOUNG UNIVERSITY	4,375	4,451I	4,002E	3,706	1,892	1,690I	1,521E	1,408
196 PRAIRIE VIEW A & M UNIV	4,079	1,561I	1,381E	1,381I	3,780	1,492I	1,349E	1,349I
197 FLORIDA A & M UNIVERSITY	4,074	2,520	2,739I	2,382	1,245	2,126	2,548I	2,265
198 NORTHERN ILLINOIS UNIV	4,039	5,375	3,898	3,352	1,241	1,443	1,233	1,216
199 UNIV OF P R-MED SCI CMPSU	4,015I	3,778I	3,342I	2,925I	3,844I	3,695I	3,342I	2,908I
200 WORCESTER POLY INSTITUTE	4,006	3,587	3,696	3,359	1,612	2,070	2,035	1,138
TOTAL, 1ST 200 INSTS.	7,010,842	6,575,575	5,846,656	5,170,310	4,608,366	4,413,905	3,967,175	3,479,486
TOTAL, ALL OTHER INSTS.	249,795	242,768	213,462	91,098	140,898	145,144	126,411	115,785

1/ INCLUDES APPLIED PHYSICS LABORATORY WITH \$199 MILLION IN TOTAL AND \$192 MILLION IN FEDERALLY FINANCED R&D EXPENDITURES.
2/ DOES NOT INCLUDE R&D EXPENDITURES AT UNIVERSITY ASSOCIATED FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS (FFRDC'S).
NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED.
DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 4 -- CURRENT FUND EXPENDITURES FOR RESEARCH EQUIPMENT AT UNIVERSITIES AND COLLEGES
BY SCIENCE/ENGINEERING FIELD AND SOURCE OF FUNDS: FISCAL YEARS 1981 AND 1982

(DOLLARS IN THOUSANDS)

FIELD	TOTAL			FEDERALLY FINANCED			NON-FEDERAL		
	1981	1982	PERCENT CHANGE 1981-82	1981	1982	PERCENT CHANGE 1981-82	1981	1982	PERCENT CHANGE 1981-82
TOTAL.....	413,945	408,787	-1.2	265,003	266,671	0.6	148,942	142,114	-4.6
ENGINEERING	69,007	65,861	-4.6	42,394	43,220	1.9	26,613	22,641	-14.9
AERONAUTICAL AND ASTRONAUTICAL	2,870	2,284	-20.4	2,097	1,376	-34.4	773	908	17.5
CHEMICAL	7,020	6,442	-8.2	4,436	3,821	-13.9	2,584	2,421	-6.3
CIVIL	5,036	5,164	2.5	2,772	2,823	1.8	2,264	2,341	3.4
ELECTRICAL	18,370	18,454	.5	13,260	14,058	6.0	5,110	4,396	-14.0
MECHANICAL	9,690	7,390	-23.7	5,695	4,208	-26.1	3,995	3,182	-20.4
OTHER, N.E.C.	26,021	26,127	.4	14,134	16,934	19.8	11,887	9,193	-22.7
PHYSICAL SCIENCES	76,114	78,190	2.7	58,465	62,608	7.1	17,649	15,582	-11.7
ASTRONOMY	4,582	5,127	11.9	3,232	3,941	21.9	1,350	1,186	-12.1
CHEMISTRY	35,392	33,470	-5.4	25,917	24,945	-3.8	9,475	8,525	-10.0
PHYSICS	32,440	33,106	2.1	26,311	28,475	8.2	6,129	4,631	-24.4
OTHER, N.E.C.	3,700	6,487	75.3	3,005	5,247	74.6	695	1,240	78.4
ENVIRONMENTAL SCIENCES	31,566	28,597	-9.4	19,181	18,431	-3.9	12,385	10,166	-17.9
ATMOSPHERIC	5,721	4,536	-20.7	3,499	3,287	-6.1	2,222	1,249	-43.8
EARTH SCIENCES	11,803	10,593	-10.3	6,947	6,326	-8.9	4,856	4,267	-12.1
OCEANOGRAPHY	8,846	8,879	.4	6,016	6,000	-.3	2,830	2,879	1.7
OTHER, N.E.C.	5,196	4,589	-11.7	2,719	2,818	3.6	2,477	1,771	-28.5
MATHEMATICAL/COMPUTER SCIENCES	12,801	15,238	19.0	6,563	9,832	49.8	6,238	5,406	-13.3
MATHEMATICS	1,912	2,568	35.0	1,127	1,617	43.5	775	951	22.7
COMPUTER SCIENCES	10,889	12,670	16.2	5,436	8,215	51.1	5,463	4,455	-18.5
LIFE SCIENCES	202,098	199,236	-1.4	126,126	120,151	-4.7	75,972	79,085	4.1
AGRICULTURAL SCIENCES	36,809	38,866	5.6	12,289	11,494	-6.4	24,520	27,172	10.8
BIOLOGICAL SCIENCES	76,860	75,631	-1.6	54,463	53,168	-2.4	22,397	22,463	.3
MEDICAL SCIENCES	81,495	78,812	-3.3	54,925	51,550	-6.1	26,570	27,262	2.6
OTHER, N.E.C.	6,934	5,927	-14.5	4,449	3,739	-16.0	2,485	2,188	-12.0
PSYCHOLOGY	6,019	5,784	-3.9	4,466	4,219	-5.5	1,553	1,565	.8
SOCIAL SCIENCES	9,175	7,182	-21.7	3,999	2,900	-27.5	5,176	4,282	-17.3
ECONOMICS	1,861	1,696	-8.9	525	666	26.9	1,336	1,030	-22.9
POLITICAL SCIENCE	1,523	765	-49.8	756	312	-58.7	767	453	-40.9
SOCIOLOGY	2,558	2,108	-17.6	1,478	948	-35.9	1,080	1,160	7.4
OTHER, N.E.C.	3,233	2,613	-19.2	1,240	974	-21.5	1,993	1,639	-17.8
OTHER SCIENCES, N.E.C.	7,165	8,699	21.4	3,809	5,312	39.5	3,356	3,387	.9

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 5 -- CAPITAL EXPENDITURES AT UNIVERSITIES AND COLLEGES
BY SCIENCE/ENGINEERING FIELD AND SOURCE OF FUNDS: FISCAL YEARS 1975-82 1/
(DOLLARS IN THOUSANDS)

FIELD	1975	1976	1977	1979	1980	1981	1982
ALL SOURCES, TOTAL	1,018,773	1,043,153	960,014	696,218	794,512	952,211	973,203
ENGINEERING	118,315	81,678	87,718	87,128	89,297	103,329	144,990
PHYSICAL SCIENCES	80,642	73,755	65,216	64,685	77,154	87,813	82,104
ENVIRONMENTAL SCIENCES	35,278	49,304	28,351	25,153	36,208	35,026	42,447
MATHEMATICAL/COMPUTER SCIENCES	15,227	24,684	25,136	27,282	32,318	30,517	35,945
LIFE SCIENCES	669,093	706,961	642,493	428,293	459,057	597,597	591,136
PSYCHOLOGY	11,710	9,131	12,702	7,060	17,982	10,991	13,246
SOCIAL SCIENCES	50,904	44,303	31,798	21,358	35,073	45,125	31,248
OTHER SCIENCES, N.E.C.	37,604	53,337	66,600	35,259	47,423	41,813	32,087
FEDERAL SOURCES, TOTAL	270,083	206,890	195,519	164,460	149,563	153,798	118,996
ENGINEERING	64,019	20,200	17,219	20,927	20,438	17,601	18,246
PHYSICAL SCIENCES	18,862	19,195	21,894	32,186	22,463	25,529	20,132
ENVIRONMENTAL SCIENCES	5,960	6,428	9,307	8,220	8,033	6,867	4,479
MATHEMATICAL/COMPUTER SCIENCES	2,584	2,052	1,882	2,983	5,653	4,944	5,254
LIFE SCIENCES	169,459	153,570	137,369	90,796	86,105	89,409	66,509
PSYCHOLOGY	2,245	1,967	2,398	1,740	2,002	1,580	1,110
SOCIAL SCIENCES	2,755	1,804	2,109	2,076	1,528	6,376	1,407
OTHER SCIENCES, N.E.C.	4,199	1,672	3,341	5,532	3,341	1,492	1,859
OTHER SOURCES, TOTAL	748,690	836,263	764,495	531,758	644,949	798,413	854,207
ENGINEERING	54,296	61,478	70,499	66,201	68,859	85,728	126,744
PHYSICAL SCIENCES	61,780	54,560	43,322	32,499	54,691	62,284	61,972
ENVIRONMENTAL SCIENCES	29,318	42,876	19,044	16,933	28,175	28,159	37,968
MATHEMATICAL/COMPUTER SCIENCES	12,643	22,632	23,254	24,299	26,665	25,573	30,691
LIFE SCIENCES	499,634	553,391	505,124	337,497	372,952	508,188	524,627
PSYCHOLOGY	9,465	7,164	10,304	5,320	15,980	9,411	12,136
SOCIAL SCIENCES	48,149	42,497	29,689	19,282	33,545	38,749	29,841
OTHER SCIENCES, N.E.C.	33,405	51,645	63,259	29,727	44,082	40,321	30,228

1/ DATA WERE NOT COLLECTED IN 1978.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 6 -- FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES,
BY TYPE OF ACTIVITY: FY 1963-82 1/

(DOLLARS IN THOUSANDS)

FISCAL YEAR	TOTAL OBLIGATIONS	ACADEMIC SCIENCE/ENGINEERING							NON-SCIENCE/ENGINEERING ACTIVITIES
		TOTAL ACADEMIC SCIENCE/ENGINEERING	RESEARCH AND DEVELOPMENT	R&D PLANT	FACILITIES FOR INSTRUCTION IN THE SCIENCES & ENGINEERING	FELLOWSHIPS, TRAINEESHIPS, & TRAINING GRANTS	GENERAL SUPPORT FOR SCIENCE/ENGINEERING	OTHER SCIENCE/ENGINEERING ACTIVITIES	
1963	1,413,015	1,328,511	829,524	105,896	(2)	(2)	(2)	393,091	84,504
1964	1,624,963	1,528,604	975,597	100,837	(2)	(2)	(2)	452,170	96,359
1965	2,305,455	1,816,171	1,094,963	126,196	(2)	(2)	(2)	595,012	489,284
1966	3,009,950	2,163,504	1,252,146	114,767	(2)	365,560	(2)	431,031	846,446
1967	3,317,709	2,323,795	1,301,242	111,309	(2)	447,236	(2)	464,008	993,914
1968	3,386,637	2,349,817	1,398,305	96,148	(2)	440,895	(2)	414,469	1,036,820
1969	3,462,370	2,361,399	1,474,681	54,516	(2)	436,270	(2)	395,932	1,100,971
1970	3,236,612	2,187,579	1,446,618	44,778	(2)	429,408	(2)	266,775	1,049,033
1971	3,498,596	2,343,129	1,551,391	29,942	28,729	421,029	99,669	212,369	1,155,467
1972	4,144,570	2,598,989	1,852,963	30,917	26,341	387,888	83,288	211,592	1,545,581
1973	3,839,102	2,464,362	1,870,690	43,338	13,372	287,210	38,964	210,788	1,374,740
1974	4,480,372	2,736,984	2,085,204	29,009	3,506	326,600	86,974	205,691	1,743,388
1975	4,547,191	2,805,783	2,246,082	44,787	5,026	201,273	46,353	262,256	1,741,408
1976	5,402,764	2,959,656	2,430,970	23,899	3,210	174,871	74,483	252,223	2,443,108
1977	6,489,735	3,351,337	2,803,017	36,471	3,282	184,671	75,928	247,968	3,138,398
1978	7,471,843	3,959,832	3,385,770	34,328	4,906	205,925	74,398	254,505	3,512,011
1979	7,603,908	4,472,659	3,873,514	32,068	6,743	204,866	92,483	262,985	3,131,249
1980	8,298,118	4,803,251	4,159,857	37,780	3,776	223,086	91,541	287,211	3,494,867
1981	7,704,329	5,071,856	4,410,464	27,694	4,563	214,915	92,721	321,499	2,632,473
1982	8,702,380	5,245,484	4,552,543	31,200	829	234,058	80,137	346,717	3,456,896

1/ NOTE THAT SOME TREND SHIFTS ARE DUE TO INSTITUTIONAL RECLASSIFICATION. AS OF 1978, TWO LABORATORIES WHICH WERE FORMERLY CONSIDERED ACADEMICALLY ADMINISTERED FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS (FFRDC'S) BECAME PART OF THEIR RESPECTIVE INSTITUTIONS: APPLIED PHYSICS LABORATORY (JOHNS HOPKINS UNIVERSITY) AND APPLIED RESEARCH LABORATORY (PENNSYLVANIA STATE UNIVERSITY). DATA FOR THESE LABORATORIES ARE THUS INCLUDED IN THE ACADEMIC FIGURES FOR 1978-82, BUT EXCLUDED FOR PRIOR YEARS.

SIMILARLY, DRAPER LABORATORIES SEPARATED FROM THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY AS OF FY 1974 TO BECOME AN INDEPENDENT NONPROFIT INSTITUTION; ACADEMIC DATA SHOWN FOR 1963-73 INCLUDE DRAPER LABORATORIES, WHILE THOSE FOR 1974-82 DO NOT.

2/ NOT SEPARATELY IDENTIFIED BUT INCLUDED UNDER "OTHER SCIENCE/ENGINEERING ACTIVITIES".

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 7 -- FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES,
BY TYPE OF ACTIVITY AND AGENCY: FY 1963-82 1/

(DOLLARS IN MILLIONS)

ACTIVITY & YEAR	TOTAL	USDA	COM	DOD	OE	ED	DOE 2/	EPA	HHS	HUD	INT	AID	LABOR	NASA	NSF	NRC	DOT
TOTAL OBLIGATIONS																	
1963	1,413.0	104.0	1.8	218.0	-	-	76.1	-	665.3	-	4.0	-	-	87.4	256.3	-	-
1964	1,625.0	115.0	1.7	258.1	-	-	79.9	-	780.0	-	5.3	-	-	107.6	277.5	-	-
1965	2,305.5	135.6	2.6	267.9	-	-	84.4	-	1,345.6	-	9.7	-	-	134.3	325.2	-	-
1966	3,010.0	141.0	2.8	278.0	-	-	96.9	-	1,952.2	-	22.4	-	-	142.2	374.5	-	-
1967	3,317.7	144.8	7.9	264.1	-	-	109.6	-	2,237.8	-	27.4	-	-	131.5	394.5	-	-
1968	3,386.6	144.2	9.8	243.1	54.7	-	119.7	-	2,222.2	1.7	28.2	-	6.6	129.8	422.8	-	3.8
1969	3,462.4	155.9	3.9	278.7	60.4	-	121.0	-	2,302.4	1.1	24.3	10.0	10.4	127.2	367.0	-	-
1970	3,236.6	182.1	4.9	265.5	35.6	-	114.5	-	2,060.9	.6	27.7	10.9	5.2	131.2	387.4	-	10.1
1971	3,498.6	214.6	9.7	249.0	37.5	-	105.8	27.2	2,274.6	.7	22.6	19.1	5.2	134.1	387.7	-	10.8
1972	4,144.6	238.6	26.0	243.9	30.0	-	95.3	23.3	2,842.0	1.5	24.4	18.7	7.5	119.0	458.7	-	15.9
1973	3,839.1	256.8	28.6	232.9	30.1	-	96.2	27.7	2,576.3	.9	23.8	10.7	8.3	111.4	419.6	-	15.9
1974	4,480.4	260.7	29.5	184.4	10.0	-	99.5	30.9	3,250.4	2.9	23.8	19.9	7.2	98.9	449.6	-	12.8
1975	4,547.2	290.7	26.4	190.5	-	-	124.3	38.8	3,207.9	2.3	28.8	12.4	5.5	108.0	490.5	1.1	20.8
1976	5,402.8	328.6	39.1	211.9	-	-	144.1	33.0	3,964.3	1.4	28.2	13.5	4.5	118.9	496.3	3.3	15.7
1977	6,489.7	346.7	32.5	267.3	-	-	211.8	46.3	4,817.0	4.3	29.5	24.4	7.2	121.0	565.8	4.7	11.4
1978	7,471.8	394.8	35.9	452.3	-	-	269.7	55.8	5,403.8	10.5	44.0	28.1	12.6	130.5	607.1	8.8	17.8
1979	7,603.9	427.0	47.3	528.7	-	-	274.9	68.1	5,337.7	4.0	40.1	28.5	13.7	143.9	671.6	6.9	11.4
1980	8,298.1	448.4	51.9	555.9	-	2,832.1	312.2	83.1	2,985.8	4.3	45.8	38.6	16.2	171.2	726.3	7.0	19.4
1981	7,704.3	495.6	51.6	748.1	-	2,269.8	315.7	70.4	2,750.0	3.0	38.6	31.3	15.1	183.5	694.9	7.4	29.0
1982	8,702.4	532.1	40.0	884.2	-	3,226.4	295.3	85.4	2,624.9	2.6	28.5	50.4	10.5	176.9	728.0	5.2	12.0
TOTAL ACADEMIC SCIENCE/ENGINEERING																	
1963	1,328.5	104.0	1.8	218.0	-	-	76.1	-	581.0	-	3.8	-	-	87.4	256.3	-	-
1964	1,528.5	115.0	1.7	258.1	-	-	79.9	-	683.8	-	5.1	-	-	107.6	277.5	-	-
1965	1,816.2	135.6	2.6	267.9	-	-	84.4	-	856.5	-	9.6	-	-	134.3	325.2	-	-
1966	2,163.5	141.0	2.8	278.0	-	-	96.9	-	1,109.2	-	19.1	-	-	142.2	374.5	-	-
1967	2,323.8	144.8	4.4	264.1	-	-	109.6	-	1,251.0	-	23.9	-	-	131.5	394.5	-	-
1968	2,349.8	144.2	8.0	243.1	12.5	-	119.7	-	1,229.4	1.7	28.2	-	6.6	129.8	422.8	-	3.7
1969	2,361.4	155.9	2.2	278.7	9.3	-	121.0	-	1,261.8	1.1	24.3	3.9	9.1	127.2	367.0	-	-
1970	2,187.6	182.1	3.9	265.5	18.9	-	114.5	-	1,036.7	.5	27.7	5.5	3.5	131.2	387.4	-	10.1
1971	2,343.1	214.6	7.6	249.0	16.4	-	105.8	27.2	1,142.3	.7	22.6	19.1	5.2	134.1	387.7	-	10.8
1972	2,599.0	238.6	26.0	243.9	8.3	-	95.3	23.3	1,318.4	1.5	24.3	18.7	7.3	119.0	458.7	-	15.9
1973	2,464.4	256.8	28.4	232.9	8.7	-	96.2	27.7	1,225.0	.9	23.7	10.7	6.3	111.4	419.6	-	15.9
1974	2,737.0	260.7	29.4	184.4	4.1	-	99.5	30.9	1,515.4	.6	23.8	19.9	7.1	98.9	449.6	-	12.8
1975	2,805.8	290.7	25.8	190.5	-	-	124.3	38.8	1,467.3	2.3	28.8	12.4	5.5	108.0	490.5	**	20.8
1976	2,959.7	328.6	38.2	211.9	-	-	144.1	33.0	1,522.2	1.4	28.2	13.5	4.5	118.9	496.3	3.2	15.7
1977	3,351.3	343.2	32.5	267.3	-	-	208.1	46.3	1,686.5	4.3	29.5	24.4	7.2	121.0	565.8	4.5	10.9
1978	3,959.8	391.7	35.9	452.3	-	-	267.2	54.7	1,900.8	10.5	42.5	28.1	12.6	130.5	607.1	8.4	17.5
1979	4,472.7	422.5	47.3	528.7	-	-	273.9	66.7	2,216.0	4.0	40.1	28.5	11.1	143.9	671.6	6.9	11.4
1980	4,803.3	444.1	51.2	555.9	-	61.0	309.6	81.3	2,281.1	4.3	42.4	38.6	10.3	171.2	726.3	7.0	19.1
1981	5,071.9	491.4	51.6	725.9	-	65.5	310.4	67.3	2,347.2	3.0	34.2	31.3	12.9	183.5	694.9	7.4	28.5
1982	5,245.5	529.7	40.0	867.6	-	91.9	288.2	83.8	2,432.8	2.6	28.3	50.4	8.4	176.9	728.0	5.0	12.0
RESEARCH AND DEVELOPMENT																	
1963	829.5	40.6	1.5	218.0	-	-	68.3	-	332.9	-	3.8	-	-	87.4	102.6	-	-
1964	975.6	47.5	1.1	258.1	-	-	70.5	-	399.2	-	5.0	-	-	107.6	115.8	-	-
1965	1,095.0	59.1	2.1	267.9	-	-	74.8	-	441.9	-	9.5	-	-	134.3	139.2	-	-
1966	1,252.1	62.9	2.1	278.0	-	-	83.2	-	507.3	-	18.7	-	-	142.2	184.5	-	-
1967	1,301.2	64.0	4.4	264.1	-	-	89.7	-	577.0	-	23.9	-	-	131.5	170.2	-	-
1968	1,288.3	64.2	6.7	243.1	12.5	-	101.8	-	619.1	1.0	27.8	-	6.6	129.8	422.8	-	3.7
1969	1,474.7	63.6	1.7	278.7	9.3	-	103.1	-	667.1	1.0	23.5	3.9	9.1	127.2	367.0	-	-
1970	1,446.6	67.4	3.2	265.5	18.9	-	101.4	-	614.9	.5	27.1	5.5	3.5	131.2	387.4	-	10.1
1971	1,551.4	74.8	6.9	249.0	16.4	-	95.9	17.0	695.7	.7	21.3	17.1	3.3	134.1	387.7	-	10.8
1972	1,853.0	88.6	23.6	243.9	8.3	-	86.8	17.7	879.3	1.5	23.0	13.5	7.3	119.0	458.7	-	15.9
1973	1,870.7	93.8	24.9	232.9	8.7	-	85.2	18.6	903.8	.9	22.2	8.4	5.0	102.6	348.5	-	15.2
1974	2,085.2	96.7	26.6	184.4	3.4	-	94.6	24.1	1,129.0	.6	22.2	18.4	5.6	92.0	376.1	-	11.5
1975	2,246.1	110.5	22.2	190.5	-	-	119.2	33.8	1,205.2	2.3	27.2	8.3	4.0	100.2	404.6	.0	18.1
1976	2,431.0	124.2	29.0	211.9	-	-	138.1	29.3	1,296.2	1.4	25.7	10.7	3.0	106.8	436.6	3.2	14.9
1977	2,803.0	142.2	32.2	267.3	-	-	187.2	45.0	1,452.1	4.3	27.4	20.2	7.2	113.7	491.0	3.8	9.6
1978	3,385.8	175.3	35.0	452.3	-	-	251.1	51.1	1,657.6	10.5	34.3	24.9	12.6	124.7	531.5	8.4	16.4
1979	3,873.3	193.8	45.9	528.7	-	-	256.4	60.9	1,966.5	4.0	35.3	28.0	11.1	137.2	587.8	6.5	11.4
1980	4,159.9	211.8	50.0	555.9	-	48.0	279.6	76.7	2,025.6	4.3	38.8	38.6	10.3	161.3	633.8	6.1	19.1
1981	4,410.5	241.4	51.0	700.4	-	56.1	281.8	64.0	2,113.0	3.0	30.2	31.3	12.9	173.9	616.6	7.0	27.8
1982	4,552.5	256.5	39.1	813.7	-	34.4	265.2	78.0	2,110.6	.5	21.5	50.4	8.4	167.7	689.7	5.0	11.7

SEE FOOTNOTES AT END OF TABLE.

TABLE 7 -- FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES,
BY TYPE OF ACTIVITY AND AGENCY: FY 1963-82 1/

(DOLLARS IN MILLIONS)

-CONTINUED

ACTIVITY & YEAR	TOTAL	USDA	COM	DOD	DOE	ED	DOE 2/	EPA	HHS	HUD	INT	AID	LABOR	NASA	NSF	NRC	DOT
R&D PLANT																	
1963	105.9	0.0	0.0	0.0	-	-	2.6	-	39.2	-	0.1	-	-	13.4	50.6	-	-
1964	100.8	0.0	0.0	0.0	-	-	4.0	-	39.9	-	0.0	-	-	9.1	47.8	-	-
1965	126.2	3.2	0.0	0.0	-	-	3.8	-	54.8	-	**	-	-	8.4	56.0	-	-
1966	114.8	2.0	0.0	0.0	-	-	7.4	-	48.5	-	.2	-	-	7.4	49.3	-	-
1967	111.3	2.0	.3	0.0	-	-	13.8	-	38.1	-	0.0	-	-	5.0	52.1	-	-
1968	96.1	1.9	.2	0.0	0.0	-	11.9	-	36.9	0.0	0.0	-	0.0	0.0	45.3	-	0.0
1969	54.5	1.2	0.0	0.0	0.0	-	11.4	-	20.5	0.0	**	0.0	0.0	0.0	21.4	-	0.0
1970	44.8	1.1	**	0.0	0.0	-	7.1	0.0	20.0	0.0	0.0	0.0	0.0	0.0	16.5	-	0.0
1971	29.9	0.0	0.0	0.0	0.0	-	4.8	0.0	15.2	0.0	0.0	0.0	0.0	0.0	9.7	-	0.0
1972	36.9	0.0	0.0	0.0	0.0	-	4.1	0.0	22.2	0.0	0.0	0.0	0.0	0.0	10.0	-	0.0
1973	43.3	0.0	.3	0.0	0.0	-	5.6	0.0	26.7	0.0	.2	0.0	0.0	3.0	7.4	-	0.0
1974	29.0	0.0	0.0	0.0	0.0	-	4.2	0.0	14.5	0.0	0.0	0.0	0.0	.1	10.2	-	0.0
1975	44.8	0.0	0.0	0.0	0.0	-	4.2	0.0	22.9	0.0	0.0	0.0	0.0	.1	17.6	0.0	0.0
1976	23.9	0.0	1.0	0.0	0.0	-	5.6	0.0	11.4	0.0	0.0	0.0	0.0	.1	5.9	0.0	0.0
1977	36.5	0.0	0.0	0.0	0.0	-	17.5	0.0	11.1	0.0	0.0	0.0	0.0	**	7.3	0.0	.5
1978	34.3	0.0	0.0	0.0	0.0	-	13.4	**	9.9	0.0	0.0	0.0	0.0	0.0	11.0	0.0	**
1979	32.1	0.0	0.0	0.0	0.0	-	9.1	0.0	7.5	0.0	0.0	.5	0.0	.2	14.7	0.0	0.0
1980	37.8	0.0	0.0	0.0	0.0	0.0	20.6	0.0	4.4	0.0	0.0	0.0	0.0	.2	12.6	0.0	0.0
1981	27.7	0.0	0.0	1.1	0.0	0.0	19.6	0.0	2.0	0.0	0.0	0.0	0.0	.1	4.9	0.0	0.0
1982	31.2	0.0	0.0	.5	0.0	0.0	18.8	1.4	5.4	0.0	0.0	0.0	0.0	.2	4.9	0.0	0.0
FACILITIES FOR INSTRUCTION																	
1971 3/	28.7	.3	0.0	0.0	0.0	-	2.3	0.0	13.9	0.0	.1	0.0	0.0	0.0	12.1	-	0.0
1972	26.3	.5	0.0	0.0	0.0	-	1.9	0.0	20.9	0.0	0.0	0.0	0.0	0.0	3.0	-	0.0
1973	13.4	0.0	0.0	0.0	0.0	-	2.3	0.0	9.4	0.0	.1	0.0	0.0	0.0	1.6	-	0.0
1974	3.5	0.0	0.0	0.0	0.0	-	0.0	0.0	.4	0.0	**	0.0	0.0	0.0	3.1	-	0.0
1975	5.0	0.0	.1	0.0	0.0	-	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	**	0.0	0.0
1976	3.2	0.0	.3	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
1977	3.3	0.0	0.0	0.0	0.0	-	.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
1978	4.9	0.0	0.0	0.0	0.0	-	1.3	0.0	0.0	0.0	**	0.0	0.0	0.0	3.5	0.0	0.0
1979	6.7	0.0	0.0	0.0	0.0	-	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0
1980	3.8	0.0	0.0	0.0	0.0	0.0	.9	.1	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0
1981	4.6	0.0	0.0	.2	0.0	0.0	1.1	**	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0
1982	.8	0.0	0.0	**	0.0	0.0	.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FELLOWSHIPS, TRAINEE-SHIPS, & TRNG GRNTS																	
1966 3/	365.6	-	0.0	-	-	-	3.2	-	289.9	-	0.0	-	-	25.0	47.5	-	-
1967	447.2	-	0.0	-	-	-	3.7	-	379.2	-	0.0	-	-	15.0	49.4	-	-
1968	440.9	-	0.0	-	0.0	-	3.6	-	387.0	-	0.0	-	0.0	.9	49.4	-	0.0
1969	436.3	-	0.0	-	0.0	-	5.5	-	375.7	-	0.0	-	0.0	1.3	53.8	-	0.0
1970	429.4	-	0.0	-	0.0	-	5.0	-	369.6	-	0.0	-	0.0	2.1	52.7	-	0.0
1971	421.0	0.0	**	0.0	0.0	-	2.6	10.1	361.4	0.0	**	0.0	.6	1.0	42.3	-	2.8
1972	387.9	0.0	.4	0.0	0.0	-	2.0	5.6	346.6	0.0	0.0	0.0	0.0	1.1	28.8	-	3.5
1973	287.2	0.0	.6	0.0	0.0	-	2.3	9.2	256.8	0.0	0.0	0.0	0.0	1.3	16.4	-	.7
1974	326.6	0.0	**	0.0	.7	-	.5	6.8	301.5	0.0	0.0	0.0	0.0	1.2	14.4	-	1.3
1975	201.3	0.0	**	0.0	-	-	.7	5.0	181.7	0.0	0.0	0.0	0.0	1.3	9.7	0.0	2.7
1976	174.9	0.0	0.0	0.0	0.0	-	.1	3.6	155.6	0.0	0.0	0.0	0.0	1.3	13.4	**	.8
1977	184.7	0.0	0.0	0.0	0.0	-	.2	1.3	165.9	0.0	0.0	0.0	0.0	1.4	14.8	.1	.8
1978	205.9	0.0	0.0	0.0	0.0	-	.7	3.6	184.2	0.0	3.2	.6	0.0	1.3	11.7	**	.6
1979	204.9	0.0	0.0	0.0	0.0	-	1.9	4.5	182.3	0.0	.3	0.0	0.0	1.8	14.1	0.0	0.0
1980	223.1	0.0	0.0	0.0	0.0	13.0	0.0	4.5	187.6	0.0	1.4	0.0	0.0	2.8	13.8	0.0	0.0
1981	214.9	0.0	0.0	0.0	0.0	9.5	0.0	2.4	183.5	0.0	.9	0.0	0.0	3.7	14.8	.1	0.0
1982	234.1	0.0	0.0	0.0	0.0	57.5	.3	2.5	151.9	0.0	0.0	0.0	0.0	4.2	17.5	0.0	.4
GENERAL SUPPORT FOR SCIENCE/ENGINEERING																	
1971 3/	99.7	0.0	.2	0.0	0.0	-	0.0	0.0	40.2	0.0	1.1	0.0	1.2	0.0	56.9	-	0.0
1972	83.3	0.0	1.5	0.0	0.0	-	0.0	0.0	40.7	0.0	1.2	5.2	0.0	0.0	34.7	-	0.0
1973	39.0	0.0	0.0	0.0	0.0	-	0.0	0.0	20.2	0.0	1.3	2.3	.9	0.0	14.2	-	0.0
1974	87.0	0.0	.5	0.0	0.0	-	0.0	0.0	64.2	0.0	1.6	1.5	1.4	0.0	17.8	-	0.0
1975	46.4	0.0	1.8	0.0	0.0	-	0.0	0.0	37.3	0.0	1.6	4.2	1.5	0.0	0.0	0.0	0.0
1976	74.5	0.0	4.4	0.0	0.0	-	0.0	0.0	47.8	0.0	2.4	2.8	1.5	0.0	21.6	0.0	0.0
1977	75.9	0.0	0.0	0.0	0.0	-	2.5	0.0	42.0	0.0	1.8	4.1	0.0	0.0	24.8	.7	0.0
1978	74.4	0.0	0.0	0.0	0.0	-	.3	0.0	45.0	0.0	5.0	0.0	0.0	0.0	23.8	0.0	.3
1979	92.5	4.7	0.0	0.0	0.0	-	**	1.3	92.8	0.0	4.4	0.0	0.0	0.0	29.4	0.0	0.0
1980	91.5	0.0	0.0	0.0	0.0	0.0	5.6	0.0	60.1	0.0	2.3	0.0	0.0	0.0	23.2	.4	0.0
1981	92.7	0.0	0.0	7.1	0.0	0.0	0.0	0.0	60.0	0.0	3.1	0.0	0.0	0.0	21.0	0.0	.7
1982	80.1	0.0	0.0	4.8	0.0	0.0	**	1.7	61.3	2.0	6.8	0.0	0.0	0.0	3.5	0.0	0.0

SEE FOOTNOTES AT END OF TABLE.

TABLE 7 -- FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES,
BY TYPE OF ACTIVITY AND AGENCY: FY 1963-82 1/

(DOLLARS IN MILLIONS)

-CONTINUED

ACTIVITY & YEAR	TOTAL	USDA	COM	DOD	OEO	ED	DOE 2/	EPA	HHS	HUD	INT	AID	LABOR	NASA	NSF	NRC	DOT
OTHER SCIENCE/ ENGINEERING ACTIVITIES																	
1963	393.1	63.4	0.3	0.0	-	-	5.3	-	208.9	-	**	-	-	14.1	101.1	-	-
1964	452.2	67.5	.6	.0	-	-	5.4	-	244.8	-	**	-	-	20.2	113.9	-	-
1965	595.0	73.3	.6	.0	-	-	5.9	-	359.8	-	**	-	-	25.4	130.1	-	-
1966	431.0	76.1	.7	.0	-	-	3.1	-	263.4	-	0.2	-	-	2.3	85.2	-	-
1967	464.0	78.8	.7	.0	-	-	2.5	-	256.7	-	**	-	-	2.4	122.8	-	-
1968	414.5	80.1	1.0	.0	0.0	-	2.5	-	186.4	.7	.4	-	0.0	2.8	140.5	-	**
1969	395.9	91.1	.5	**	.0	-	1.0	-	198.4	.1	.9	-	.0	3.7	100.2	-	-
1970	266.8	113.5	.7	**	.0	-	1.0	-	32.2	.0	.6	-	.0	1.7	117.0	-	.0
1971	212.4	139.5	.5	.0	.0	-	.3	.0	15.9	.0	.0	2.1	.1	4.2	49.9	-	.0
1972	211.6	149.5	.6	.0	.0	-	.5	.0	8.6	.0	.0	.0	.0	4.9	47.5	-	.0
1973	210.8	163.0	2.7	.0	.0	-	.8	.0	8.0	.0	.0	.0	.4	4.5	31.4	-	.0
1974	205.7	164.0	2.2	.0	.0	-	.2	.0	5.7	.0	.0	.0	.0	5.7	27.9	-	.0
1975	262.3	180.2	1.7	.0	-	-	.1	.0	15.3	.0	.0	.0	**	6.4	58.6	**	.0
1976	252.2	204.4	3.6	.0	-	-	.3	.0	17.1	.0	.1	.0	.0	10.7	16.0	.0	.0
1977	248.0	201.0	.3	.0	-	-	.3	.0	15.4	.0	.3	.0	.0	5.9	24.9	.0	.0
1978	254.5	216.4	.9	.0	-	-	.3	.0	4.1	.0	.0	2.6	.0	4.4	25.6	.0	.2
1979	263.0	224.0	1.5	.0	-	-	3.0	.1	6.9	.0	.0	.0	.0	4.7	22.4	.4	.0
1980	287.2	232.3	1.2	.0	-	0.0	2.8	.0	3.4	.0	.0	.0	.0	6.9	40.2	.3	.0
1981	321.5	250.0	.7	17.1	-	.0	7.9	**	5.3	.0	**	.0	.0	5.7	34.4	.4	**
1982	346.7	273.2	.8	48.6	-	.0	3.1	.2	3.6	**	.0	.0	.0	4.8	12.4	.0	.0
NON-SCIENCE/ ENGINEERING ACTIVITIES																	
1963	84.5	.0	.0	.0	-	-	.0	-	84.3	-	.2	-	-	.0	.0	-	-
1964	96.4	.0	.0	.0	-	-	.0	-	96.2	-	.2	-	-	.0	.0	-	-
1965	489.3	**	.0	.0	-	-	.0	-	489.1	-	.1	-	-	.0	.0	-	-
1966	846.4	**	.0	.0	-	-	.0	-	843.1	-	3.4	-	-	.0	.0	-	-
1967	993.9	**	3.5	.0	-	-	.0	-	987.8	-	3.5	-	-	.0	.0	-	-
1968	1,036.8	.0	1.8	.0	42.2	-	.0	-	992.8	.0	.0	-	.0	.0	.0	-	.1
1969	1,101.0	.0	1.8	**	51.1	-	.0	-	1,040.6	**	.0	6.1	1.3	.0	.0	-	.0
1970	1,049.0	.0	1.0	**	16.7	-	.0	-	1,024.2	**	.0	5.4	1.7	.0	.0	-	.0
1971	1,155.5	.0	2.0	.0	21.1	-	.0	.0	1,132.3	.0	**	.0	.0	.0	.0	-	.0
1972	1,545.6	.0	.0	.0	21.7	-	.0	.0	1,523.5	.0	.1	.0	.2	.0	.0	-	.0
1973	1,374.7	.0	.1	.0	21.3	-	**	.0	1,351.2	.0	.1	.0	2.0	.0	.0	-	.0
1974	1,743.4	.0	.1	.0	5.9	-	.0	.0	1,735.0	2.2	.0	.0	.1	.0	.0	.1	.0
1975	1,741.4	.0	.7	.0	-	-	.0	.0	1,740.6	.0	**	.0	.0	.0	.0	**	.0
1976	2,443.1	.0	.9	.0	-	-	.0	.0	2,442.1	.0	.1	.0	.0	.0	.0	.2	.5
1977	3,138.4	3.5	.0	.0	-	-	3.7	.0	3,130.5	.0	.0	.0	.0	.0	.0	-	.0
1978	3,512.0	3.2	.0	.0	-	-	2.5	1.1	3,503.1	.0	1.5	.0	.0	.0	.0	.4	.2
1979	3,131.2	4.5	.0	.0	-	-	1.0	1.4	3,121.7	.0	.0	.0	2.6	.0	.0	**	.0
1980	3,494.9	4.3	.6	.0	-	2,771.1	2.7	1.9	704.7	.0	3.3	.0	5.9	.0	.0	**	.3
1981	2,632.5	4.2	.0	22.2	-	2,204.3	5.3	3.1	386.2	.0	4.3	.0	2.2	.0	.0	**	.5
1982	3,456.9	2.4	.0	16.6	-	3,134.5	7.1	1.6	292.1	.0	.2	.0	2.1	.0	.0	.2	.0

1/ SEE FOOTNOTE 1 AT END OF TABLE 6.

2/ DATA SHOWN FOR FISCAL YEARS 1963-74 AND FISCAL YEARS 1975-77 REPRESENT OBLIGATIONS OF THE ATOMIC ENERGY COMMISSION AND THE ENERGY RESEARCH & DEVELOPMENT ADMINISTRATION, RESPECTIVELY.

3/ DATA PREVIOUS TO THIS YEAR ARE NOT SEPARATELY IDENTIFIED BUT ARE INCLUDED UNDER "OTHER SCIENCE/ENGINEERING ACTIVITIES".

- INDICATES NOT AVAILABLE.

** INDICATES AMOUNT LESS THAN \$50,000.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 8 -- FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES,
BY AGENCY AND TYPE OF ACTIVITY: FY 1982

(DOLLARS IN THOUSANDS)

AGENCY	TOTAL OBLIGA- TIONS	ACADEMIC SCIENCE/ENGINEERING							NON-SCIENCE/ ENGINEERING ACTIVITIES
		TOTAL ACADEMIC SCI/ENG	RESEARCH AND DEVELOP- MENT	R&D PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOW- SHIPS, TRAINEE- SHIPS, TRAINING GRANTS	GENERAL SUPPORT SCI/ENG	OTHER SCI/ENG ACTIVI- TIES	
TOTAL	8,702,380	5,245,484	4,552,543	31,200	829	234,058	80,137	346,717	3,456,896
DEPARTMENT OF AGRICULTURE	532,128	529,687	254,535	0	0	0	0	273,152	2,441
DEPARTMENT OF COMMERCE	39,960	39,960	39,132	0	0	0	0	828	0
DEPARTMENT OF DEFENSE, TOTAL	824,194	867,556	813,673	454	46	0	4,831	48,552	14,638
ARMY	151,552	144,142	126,187	454	0	0	4,305	13,196	7,410
NAVY	512,934	507,473	484,378	0	0	0	425	22,670	5,461
AIR FORCE	187,602	185,766	177,604	0	0	0	101	8,061	1,836
OTHER DOD	32,106	30,175	25,504	0	46	0	0	4,625	1,931
DEPARTMENT OF EDUCATION	3,226,400	91,855	34,312	0	0	57,476	0	0	3,134,545
DEPARTMENT OF ENERGY	295,251	288,187	265,155	18,808	783	267	28	3,146	7,064
ENVIRONMENTAL PROTECTION AGENCY	85,397	83,782	78,027	1,400	0	2,477	1,703	175	1,615
DEPARTMENT OF HEALTH & HUMAN SERVICES	2,624,894	2,332,774	2,110,633	5,405	0	151,855	61,301	3,580	292,120
NATIONAL INSTITUTES OF HEALTH	2,168,081	2,168,081	1,961,511	5,405	0	136,281	61,301	3,580	0
HEALTH SERVICES AND RESOURCES ADMINISTRATION	255,927	4,987	4,987	0	0	0	0	0	250,940
ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION	161,901	129,204	113,829	0	0	15,375	0	0	32,697
CENTER FOR DISEASE CONTROL	13,786	7,192	7,147	0	0	45	0	0	6,594
FOOD AND DRUG ADMINISTRATION	4,302	4,302	4,302	0	0	0	0	0	0
OFFICE OF HUMAN DEVELOPMENT SERVICES ..	7,265	7,265	7,111	0	0	154	0	0	0
HEALTH CARE FINANCING ADMINISTRATION ..	4,430	4,430	4,430	0	0	0	0	0	0
SOCIAL SECURITY ADMINISTRATION	1,190	0	0	0	0	0	0	0	1,190
OFFICE OF HEALTH POLICY RSCH & STATISTICS	5,300	5,300	5,300	0	0	0	0	0	0
OTHER DHHS	2,712	2,013	2,013	0	0	0	0	0	699
DEPARTMENT OF HOUSING AND URBAN DEV	2,562	2,562	537	0	0	0	2,000	25	0
DEPARTMENT OF THE INTERIOR	28,482	28,317	21,545	0	0	0	6,772	0	165
AGENCY FOR INTERNATIONAL DEVELOPMENT	50,439	50,439	50,439	0	0	0	0	0	0
DEPARTMENT OF LABOR	10,457	8,371	8,371	0	0	0	0	0	2,086
NATIONAL AERONAUTICS AND SPACE ADMIN	176,937	176,937	167,744	199	0	4,152	0	4,842	0
NATIONAL SCIENCE FOUNDATION	728,020	728,020	689,692	4,934	0	17,475	3,502	12,417	0
NUCLEAR REGULATORY COMMISSION	5,236	5,014	5,014	0	0	0	0	0	222
DEPARTMENT OF TRANSPORTATION	12,023	12,023	11,667	0	0	356	0	0	0

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 9 -- FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES,
BY GEOGRAPHIC DIVISION AND STATE: FY 1975-82 1/

GEOGRAPHIC DIVISION AND STATE	(DOLLARS IN THOUSANDS)							
	1975	1976	1977	1978	1979	1980	1981	1982
UNITED STATES, TOTAL	4,547,191	5,402,764	6,489,735	7,471,843	7,603,908	8,298,118	7,704,329	8,702,380
NEW ENGLAND, TOTAL	417,449	470,718	530,619	673,635	574,863	794,623	743,183	867,380
CONNECTICUT	76,159	84,959	101,262	115,839	114,582	141,798	137,983	158,321
MAINE	16,520	21,972	23,893	28,439	13,610	29,096	24,433	31,947
MASSACHUSETTS	261,968	289,431	367,233	430,951	368,782	505,935	478,620	549,992
NEW HAMPSHIRE	17,411	21,925	28,624	29,910	21,924	35,946	32,021	37,575
RHODE ISLAND	24,901	29,896	34,191	37,776	35,047	52,618	43,638	62,682
VERMONT	20,490	22,535	25,416	30,720	20,918	29,230	26,488	26,863
MIDDLE ATLANTIC, TOTAL	747,004	847,154	1,037,563	1,220,703	990,056	1,450,818	1,258,460	1,392,154
NEW JERSEY	79,850	86,460	106,945	124,529	90,326	129,979	121,056	136,756
NEW YORK	454,385	508,470	626,079	746,768	599,317	891,813	764,654	817,297
PENNSYLVANIA	212,769	252,224	304,539	349,406	300,413	429,026	372,750	438,101
EAST NORTH CENTRAL, TOTAL	661,752	803,526	956,725	1,084,502	844,605	1,183,000	1,098,183	1,221,676
ILLINOIS	200,671	231,731	280,841	322,271	246,923	334,939	313,497	339,071
INDIANA	75,960	90,898	104,988	120,287	95,816	139,178	131,412	142,935
MICHIGAN	139,803	182,214	220,516	238,889	176,207	268,633	239,754	288,467
OHIO	137,595	168,744	201,509	235,461	185,575	257,448	242,446	274,777
WISCONSIN	107,723	129,939	148,871	167,594	140,084	182,802	171,074	176,426
WEST NORTH CENTRAL, TOTAL	341,949	411,377	472,236	515,023	436,245	587,715	500,131	574,422
IOWA	58,184	68,093	73,498	82,763	76,795	104,047	92,128	105,690
KANSAS	40,552	50,588	59,760	67,527	54,841	76,707	57,699	64,551
MINNESOTA	88,627	99,315	125,116	128,795	111,214	154,534	125,224	148,297
MISSOURI	98,058	114,321	135,044	145,570	122,595	159,955	143,916	156,176
NEBRASKA	28,047	42,131	37,848	40,761	37,358	42,950	45,778	45,778
NORTH DAKOTA	15,741	18,965	19,656	25,952	18,372	27,063	24,218	25,609
SOUTH DAKOTA	12,740	17,964	21,314	23,655	15,070	22,459	19,893	28,321
SOUTH ATLANTIC, TOTAL	730,564	849,559	1,029,621	1,286,101	1,205,479	1,456,929	1,499,079	1,646,433
DELAWARE	9,090	13,741	13,197	14,696	12,970	17,272	16,309	15,908
DISTRICT OF COLUMBIA	159,792	154,232	206,026	206,219	224,024	281,950	260,615	301,794
FLORIDA	101,027	120,654	159,458	186,909	127,159	182,578	172,406	199,675
GEORGIA	82,368	98,191	117,467	135,589	108,436	140,018	142,844	171,396
MARYLAND	110,536	130,301	147,596	308,507	363,153	358,176	471,959	434,940
NORTH CAROLINA	132,535	155,247	181,694	199,436	187,594	232,474	216,144	245,738
SOUTH CAROLINA	41,196	57,530	61,765	68,768	47,268	75,879	64,387	79,512
VIRGINIA	70,979	90,562	110,444	131,003	106,071	134,534	126,073	161,565
WEST VIRGINIA	23,041	29,101	31,974	34,974	24,804	34,048	28,342	35,905
EAST SOUTH CENTRAL, TOTAL	268,109	325,678	390,540	424,632	311,593	443,479	380,256	461,240
ALABAMA	83,966	102,411	114,508	125,687	97,041	131,647	115,552	139,266
KENTUCKY	46,148	54,122	73,659	73,190	50,580	79,417	61,633	81,119
MISSISSIPPI	47,734	58,191	72,129	83,002	54,044	79,550	67,702	88,476
TENNESSEE	90,261	110,954	130,244	142,753	109,928	152,865	135,369	152,379
WEST SOUTH CENTRAL, TOTAL	350,411	453,692	532,757	593,115	433,873	606,425	551,118	632,093
ARKANSAS	29,870	29,818	42,904	50,061	28,909	46,596	40,860	52,068
LOUISIANA	53,403	93,025	95,198	94,428	60,705	96,015	86,849	101,559
OKLAHOMA	48,472	55,740	62,257	71,260	41,482	68,372	55,849	69,103
TEXAS	218,666	275,109	330,498	377,366	302,777	395,442	367,560	409,363
MOUNTAIN, TOTAL	240,519	277,841	345,108	388,785	331,416	406,793	403,743	459,551
ARIZONA	40,917	46,822	65,851	71,867	59,589	79,553	75,349	87,126
COLORADO	76,187	86,191	106,053	118,303	102,767	130,898	119,557	123,891
IDAHO	7,767	11,020	13,388	15,928	9,657	16,795	15,784	17,723
MONTANA	12,880	15,924	17,940	19,637	14,563	21,461	18,168	22,329
NEVADA	6,861	9,062	12,004	11,636	10,063	11,866	12,226	13,633
NEW MEXICO	40,438	49,972	62,741	75,826	58,015	67,625	74,921	97,917
UTAH	47,116	49,128	55,736	65,105	65,454	67,957	76,032	84,399
WYOMING	8,353	9,722	11,395	10,483	11,308	10,638	11,706	12,533
PACIFIC, TOTAL	737,318	872,380	1,016,244	1,134,100	1,004,309	1,254,809	1,155,834	1,301,093
ALASKA	14,220	15,810	22,635	28,275	27,457	26,653	20,150	16,553
CALIFORNIA	529,184	612,517	718,743	802,820	725,481	893,448	837,222	925,408
HAWAII	28,023	37,615	34,827	44,070	40,271	44,940	37,927	41,150
OREGON	56,233	71,764	86,013	93,217	70,066	102,991	89,225	127,616
WASHINGTON	109,658	134,674	154,026	165,718	141,034	186,777	171,310	190,366
OUTLYING AREAS, TOTAL	52,116	90,839	128,322	151,247	68,794	113,527	114,342	146,338
GUAM	1,172	1,941	2,497	3,071	2,243	1,514	2,603	5,379
PUERTO RICO	49,550	87,284	124,115	145,192	63,567	109,487	108,823	135,445
AMERICAN SAMOA	125	166	195	411	350	420	169	915
VIRGIN ISLANDS	1,269	1,291	1,422	2,056	2,415	1,746	2,522	2,268
TRUST TERRITORY PAC ISL	0	157	93	517	219	360	225	2,311

1/ SEE FOOTNOTE 1 AT END OF TABLE 6.

NOTE: DATA FOR EACH YEAR REFLECT SUPPORT FROM THE AGENCIES INCLUDED IN THE SURVEY SYSTEM FOR THAT YEAR.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 10 -- FEDERAL OBLIGATIONS TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY TYPE OF ACTIVITY: FY 1982

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY TOTAL FEDERAL OBLIGATIONS)	TOTAL, ALL ACTIVITIES	TOTAL ACADEMIC SCI/ENG	RESEARCH AND DEVELOPMENT	ACADEMIC R&D PLANT	SCIENCE/ENGINEERING FACIL FOR INSTR IN S&E	FELLOWSHIPS TRAINEESHIPS TRNG GRANTS	GENERAL SUPPORT SCI/ENG	OTHER SCI/ENG	NON-SCI/ENG
TOTAL, ALL INSTITUTIONS		8,702,380	5,245,484	4,552,543	31,200	829	234,058	80,137	346,717	3,456,896
1	JOHNS HOPKINS UNIVERSITY	327,090	321,008	312,979	372	0	7,054	564	39	6,082
2	HOWARD UNIVERSITY	177,553	11,107	8,023	0	0	1,544	1,514	26	166,446
3	MASS INST OF TECHNOLOGY	164,182	160,283	148,837	4,523	0	5,715	371	837	3,899
4	STANFORD UNIVERSITY	137,314	132,644	124,289	40	0	7,538	420	357	4,670
5	UNIVERSITY OF WASHINGTON	128,197	107,214	97,690	425	0	5,954	1,868	1,277	20,983
6	UNIVERSITY OF MINNESOTA	109,957	91,860	78,714	85	0	4,138	888	8,035	18,097
7	UNIV OF CAL LOS ANGELES	108,118	95,638	89,661	415	214	4,109	732	507	12,480
8	UNIV OF CAL SAN DIEGO	107,869	97,962	90,896	208	0	3,836	562	2,460	9,907
9	CORNELL UNIVERSITY	107,846	98,389	83,936	117	0	3,132	681	10,523	9,457
10	HARVARD UNIVERSITY	104,442	96,194	85,757	450	46	8,343	649	949	8,248
TOTAL 1ST 10 INSTITUTIONS		1,425,568	1,212,299	1,120,782	6,635	260	51,363	8,249	25,010	260,269
11	UNIVERSITY OF MICHIGAN	100,432	88,195	79,794	1,938	0	4,167	578	1,718	12,237
12	UNIV OF WIS-MADISON	100,091	95,959	82,417	609	0	3,878	500	8,555	4,132
13	COLUMBIA UNIV MAIN DIV	97,892	95,014	88,879	246	0	4,738	772	379	2,878
14	UNIV OF PENNSYLVANIA	97,878	83,564	76,907	495	0	5,119	627	416	14,314
15	YALE UNIVERSITY	97,750	87,348	78,920	285	0	7,245	523	375	10,402
16	UNIV OF CAL SAN FRANCISCO	84,053	72,650	66,752	708	70	4,148	661	311	11,403
17	UNIV OF CAL BERKELEY	82,943	70,814	65,555	50	0	4,339	495	375	12,129
18	UNIV OF ILL URBANA	81,644	75,870	63,923	0	0	1,551	1,031	9,365	5,774
19	PENNSYLVANIA STATE UNIV	80,771	62,833	50,809	20	0	1,201	687	10,116	17,938
20	UNIVERSITY OF ROCHESTER	67,447	62,132	46,427	2,274	58	2,250	318	10,805	5,315
TOTAL 1ST 20 INSTITUTIONS		2,363,469	2,006,678	1,821,165	13,260	388	89,999	14,441	67,425	356,791
21	MICHIGAN STATE UNIVERSITY	63,792	50,354	35,667	4,675	0	1,249	552	8,211	13,438
22	UNIV OF SOUTHERN CAL	63,238	52,410	50,402	213	0	958	371	466	10,828
23	UNIVERSITY OF CHICAGO	63,083	59,757	54,182	0	0	5,261	295	19	3,326
24	OHIO STATE UNIVERSITY	62,759	51,848	41,073	0	0	512	503	9,760	10,911
25	WASHINGTON UNIVERSITY	61,541	57,931	52,839	0	0	4,390	592	110	3,610
26	DUKE UNIVERSITY	60,460	55,872	50,397	257	0	4,399	324	495	4,588
27	UNIVERSITY OF COLORADO	59,232	48,090	43,786	150	0	3,377	437	340	11,142
28	GALLAUDET COLLEGE	58,581	2,147	2,067	0	0	80	0	0	56,434
29	NEW YORK UNIVERSITY	57,351	47,078	43,643	250	0	2,752	299	134	10,273
30	UNIV OF NC AT CHAPEL HILL	57,328	46,395	41,890	219	0	3,602	636	48	10,933
TOTAL 1ST 30 INSTITUTIONS		2,970,834	2,478,560	2,237,111	19,024	388	116,579	18,450	87,008	492,274
31	UNIVERSITY OF FLORIDA	55,872	42,210	35,106	0	0	1,222	383	5,499	13,662
32	PURDUE UNIVERSITY	55,783	47,449	38,142	200	0	736	869	7,502	8,334
33	UNIVERSITY OF PITTSBURGH	52,897	41,593	39,397	0	0	1,408	577	211	11,304
34	YESHIVA UNIVERSITY	51,911	48,654	44,237	640	0	3,544	233	0	3,257
35	GEORGIA INSTITUTE OF TECH	50,370	50,133	43,530	0	0	172	246	6,185	237
36	TEXAS A & M UNIVERSITY	49,906	47,920	33,144	147	0	310	232	14,087	1,986
37	UNIVERSITY OF UTAH	49,621	41,942	39,886	0	40	1,174	560	282	7,679
38	INDIANA UNIVERSITY	49,340	31,509	30,056	0	0	941	403	109	17,831
39	UNIVERSITY OF ARIZONA	49,136	39,974	35,688	0	0	1,354	492	2,440	9,162
40	UNIV OF TEXAS AT AUSTIN	48,452	47,384	44,767	635	0	1,038	507	437	1,068
TOTAL 1ST 40 INSTITUTIONS		3,484,122	2,917,328	2,621,064	20,646	428	128,478	22,952	123,760	566,794
41	UNIVERSITY OF IOWA	48,013	40,057	36,971	0	0	2,342	689	55	7,956
42	NEW MEXICO STATE UNIV	47,281	40,850	21,068	43	0	542	329	18,868	6,431
43	BOSTON UNIVERSITY	44,481	32,599	30,397	212	0	1,689	257	44	11,882
44	OREGON STATE UNIVERSITY	43,198	37,730	33,245	130	0	304	503	3,548	5,468
45	NORTHWESTERN UNIVERSITY	43,124	35,061	33,117	120	0	1,322	389	113	8,063
46	CASE WESTERN RESERVE UNIV	41,747	37,148	34,834	140	0	1,700	403	71	4,599
47	BAYLOR COL OF MEDICINE	40,588	38,686	36,972	0	0	1,430	254	30	1,902
48	UNIV OF CAL DAVIS	39,999	34,454	32,700	0	250	1,027	445	32	5,545
49	UNIV ALABAMA BIRMINGHAM	39,665	30,886	28,731	0	0	1,597	558	0	8,779
50	UNIVERSITY OF MIAMI	39,637	28,905	27,070	557	0	714	212	352	10,732
TOTAL 1ST 50 INSTITUTIONS		3,911,855	3,273,704	2,936,169	21,848	678	141,145	26,991	146,873	638,151

SEE FOOTNOTES AT END OF TABLE.

TABLE 10 -- FEDERAL OBLIGATIONS TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS,
BY TYPE OF ACTIVITY: FY 1982

CONTINUED

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY TOTAL FEDERAL OBLIGATIONS)	TOTAL, ALL ACTIVITIES	ACADEMIC							NON- SCI/ENG
			TOTAL ACADEMIC SCI/ENG	RESEARCH AND DEVELOPMENT	R&D PLANT	SCIENCE/ENGINEERING FACIL FOR INSTR IN S&E	FELLOWSHIPS TRAINNEESHIPS TRNG GRANTS	GENERAL SUPPORT SCI/ENG	OTHER SCI/ENG	
51	CALIFORNIA INST OF TECH	39,615	38,815	36,672	30	0	1,775	200	138	800
52	UNIVERSITY OF CINCINNATI	39,245	24,382	20,126	1,400	0	1,037	1,792	27	14,863
53	UNIV OF MD COLLEGE PARK	38,477	33,418	28,355	88	0	981	148	3,844	5,059
54	TUFTS UNIVERSITY	36,710	17,508	16,808	0	0	409	277	14	19,202
55	UNIVERSITY OF NEW MEXICO	35,320	26,565	24,724	0	0	649	863	329	8,755
56	RUTGERS THE ST UNIV OF NJ	35,023	21,357	17,482	0	0	505	234	3,136	13,666
57	UNIVERSITY OF CONNECTICUT	34,968	29,157	24,972	0	0	1,630	523	2,032	5,811
58	UNIVERSITY OF VIRGINIA	34,205	28,980	25,688	54	0	2,495	692	50	5,225
59	HOODS HOLE OCEANOGRAPHIC INST	34,160	34,168	32,877	823	0	27	0	441	0
60	VANDERBILT UNIVERSITY	34,134	31,566	28,739	0	0	2,511	297	19	2,568
TOTAL 1ST 60 INSTITUTIONS		4,273,720	3,559,620	3,192,612	24,244	678	153,164	32,017	156,905	714,100
61	SUNY AT ALBANY	33,848	11,244	10,900	0	0	170	102	72	22,604
62	VIRGINIA COMMONWLTN UNIV	33,842	18,108	16,485	0	0	1,245	325	37	15,734
63	THE OREG HLTH SCI UNIV	33,744	10,362	9,546	0	0	444	372	0	23,382
64	UNIVERSITY OF KENTUCKY	33,241	23,594	14,764	0	0	212	438	8,180	9,647
65	N C STATE UNIV AT RALEIGH	32,744	29,637	18,158	0	0	353	94	11,032	3,107
66	UNIVERSITY OF GEORGIA	32,348	27,601	16,991	440	75	573	153	9,369	4,747
67	CARNEGIE-MELLON UNIV	31,410	26,463	25,463	0	0	514	197	287	4,947
68	LOUISIANA STATE UNIV	30,987	29,074	22,141	90	0	342	518	5,983	1,913
69	UNIV OF MISSOURI COLUMBIA	30,507	24,217	15,139	205	0	779	312	7,782	6,290
70	COLORADO STATE UNIVERSITY	30,335	26,512	22,614	0	0	808	202	2,888	3,823
TOTAL 1ST 70 INSTITUTIONS		4,596,726	3,786,432	3,364,813	24,979	753	158,624	34,730	202,531	810,294
71	PRINCETON UNIVERSITY	29,595	26,162	23,668	384	0	1,965	145	0	3,433
72	TEMPLE UNIVERSITY	28,754	16,756	14,816	0	0	1,368	231	341	11,998
73	UNIV OF HAWAII-MANOA	28,278	22,757	20,000	158	0	243	505	1,851	5,521
74	U TEX HLTH SCI CTR DALLAS	28,169	26,225	23,966	0	0	1,606	593	60	1,944
75	U TENNESSEE KNOXVILLE	28,001	27,379	18,202	0	0	578	321	8,278	622
76	UNIV OF CAL IRVINE	27,514	23,705	22,003	391	0	958	284	69	3,809
77	GEORGETOWN UNIVERSITY	26,886	12,984	12,259	0	0	334	218	173	13,902
78	VA POLYTECH INST & ST U	26,871	26,281	18,680	0	0	92	294	7,215	590
79	SUNY AT STONY BROOK	26,381	24,138	22,221	842	0	731	327	17	2,243
80	UNIV OF MD BALT PROF SCH	26,350	22,753	22,355	0	0	176	222	0	3,597
TOTAL 1ST 80 INSTITUTIONS		4,873,525	4,015,572	3,562,983	26,754	753	166,677	37,870	220,535	857,953
81	IOWA ST U OF SCI & TECH	24,812	19,281	10,869	0	0	281	301	7,830	5,531
82	WASHINGTON STATE UNIV	24,083	19,474	15,262	0	0	264	259	3,689	4,609
83	EMORY UNIVERSITY	23,826	19,662	18,574	347	0	384	299	58	4,164
84	UTAH STATE UNIVERSITY	23,772	18,144	16,047	0	0	348	76	1,673	5,628
85	UNIVERSITY OF KANSAS	23,665	17,380	15,450	0	0	1,204	432	294	6,285
86	UNIV OF CAL SANTA BARBARA	23,532	14,025	13,329	68	0	503	96	29	9,507
87	ROCKEFELLER UNIVERSITY	22,920	22,920	20,807	641	0	1,277	195	0	0
88	BROWN UNIVERSITY	22,794	19,432	18,031	0	0	1,145	174	82	3,362
89	CUNY MT SINAI SCH OF MED	22,617	20,733	19,433	0	0	1,028	196	76	1,884
90	U P R - REGIONAL COL ADMN	22,426	0	0	0	0	0	0	0	22,426
TOTAL 1ST 90 INSTITUTIONS		5,107,972	4,186,623	3,710,785	27,810	753	173,111	39,898	234,266	921,349
91	HAYNE STATE UNIVERSITY	22,238	13,679	12,280	0	0	693	682	24	8,559
92	UNIV OF MASS AT AMHERST	21,913	21,577	18,034	0	0	195	148	3,200	336
93	UNIV OF NEBRASKA-LINCOLN	21,651	16,360	11,442	0	0	485	252	4,181	5,291
94	MISSISSIPPI STATE UNIV	21,327	16,762	9,056	0	0	311	60	7,335	4,565
95	GEORGE WASHINGTON UNIV	21,311	17,413	16,279	0	0	638	192	304	3,898
96	OKLAHOMA STATE UNIVERSITY	21,295	16,328	9,119	0	0	299	93	6,817	4,967
97	UNIV OF RHODE ISLAND	21,081	16,458	13,996	1,015	0	28	122	1,297	4,623
98	UNIVERSITY OF DAYTON	20,953	18,157	17,094	0	0	0	48	1,015	2,796
99	UNIVERSITY OF OREGON MAIN	19,853	11,672	10,374	0	0	887	372	39	8,181
100	SUNY AT BUFFALO	19,586	17,247	16,123	0	0	615	427	82	2,339
TOTAL 1ST 100 INSTITUTIONS		5,319,180	4,352,276	3,844,582	28,825	753	177,262	42,294	258,560	966,904

NOTE: TABLE INCLUDES DATA FROM 15 FEDERAL AGENCIES RESPONSIBLE FOR MORE THAN
95 PERCENT OF ALL FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 11 -- FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES FOR RESEARCH AND DEVELOPMENT,
BY DETAILED FIELD: FY 1975-82 1/

(DOLLARS IN THOUSANDS)

FIELD OF SCIENCE/ENGINEERING	1975	1976	1977	1978	1979	1980	1981	1982
TOTAL, ALL FIELDS	2,246,088	2,430,970	2,803,017	3,385,770	3,873,514	4,159,857	4,410,464	4,552,543
PHYSICAL SCIENCES, TOTAL	311,060	332,902	401,211	445,482	462,867	507,884	500,353	561,506
ASTRONOMY	33,373	32,831	32,427	37,864	45,036	52,736	54,835	54,001
CHEMISTRY	89,518	103,244	123,744	139,507	155,806	170,048	164,885	181,297
PHYSICS	150,154	161,752	198,591	231,405	224,197	249,661	250,342	284,711
PHYSICAL SCIENCES, NEC	38,015	35,075	46,449	36,706	37,828	35,439	30,291	41,497
MATHEMATICAL/COMPUTER SCIENCES, TOTAL	61,528	78,767	75,543	77,637	71,609	91,572	91,161	101,266
MATHEMATICS	N/A	N/A	48,872	41,726	41,289	53,987	53,663	54,733
COMPUTER SCIENCES	N/A	N/A	26,671	34,856	29,091	36,140	34,861	44,844
MATHEMATICAL/COMPUTER SCIENCES, NEC	N/A	N/A	N/A	1,055	1,229	1,445	2,632	1,689
ENVIRONMENTAL SCIENCES, TOTAL	202,338	215,667	302,645	304,116	339,821	379,453	330,079	344,313
ATMOSPHERIC SCIENCES	47,131	49,856	88,304	85,496	91,222	86,486	95,112	94,463
GEOLOGICAL SCIENCES	45,512	68,654	107,031	116,077	118,176	109,523	101,207	101,005
OCEANOGRAPHY	54,607	57,429	55,908	57,279	74,789	92,079	91,863	102,340
ENVIRONMENTAL SCIENCES, NEC	55,088	39,728	51,402	45,264	55,634	91,365	41,897	46,505
ENGINEERING, TOTAL	212,360	218,942	265,840	503,686	574,747	612,456	792,223	798,364
AERONAUTICAL	13,972	10,587	13,053	20,840	24,883	28,044	31,056	35,530
ASTRONAUTICAL	899	797	1,674	849	3,720	4,634	4,875	8,569
CHEMICAL	14,404	21,192	31,065	41,624	20,866	22,210	27,667	30,274
CIVIL	26,155	21,391	25,018	37,227	37,521	48,130	58,300	38,745
ELECTRICAL	38,282	38,290	45,449	76,337	82,158	86,916	115,011	139,442
MECHANICAL	15,642	19,426	22,109	25,156	26,013	42,593	37,954	37,836
METALLURGY & MATERIALS	30,652	30,569	35,577	40,681	36,899	63,057	52,815	63,998
ENGINEERING, NEC	72,354	76,690	91,895	260,972	342,687	316,872	464,545	443,970
LIFE SCIENCES, TOTAL	1,223,683	1,341,141	1,488,155	1,719,103	2,016,524	2,137,751	2,286,868	2,286,209
BIOLOGICAL, TOTAL	550,214	623,337	674,385	977,167	1,172,602	1,210,478	1,339,964	1,358,866
BIOLOGICAL (EXCL. ENV. BIO.)	N/A	N/A	N/A	N/A	1,054,787	1,085,602	1,190,593	1,190,226
ENVIRONMENTAL BIOLOGY	N/A	N/A	N/A	N/A	15,564	13,137	14,711	6,448
AGRICULTURAL	N/A	N/A	N/A	N/A	102,251	111,739	134,660	162,192
MEDICAL, TOTAL	641,212	692,149	779,667	711,002	801,172	885,898	904,226	887,632
CLINICAL MEDICAL	442,727	472,313	547,741	N/A	N/A	N/A	N/A	N/A
OTHER MEDICAL	198,485	219,836	231,926	N/A	N/A	N/A	N/A	N/A
LIFE SCIENCES, NEC	32,257	25,655	32,398	30,934	42,750	41,375	42,485	39,711
PSYCHOLOGY, TOTAL	46,987	53,330	57,235	71,891	91,357	86,459	86,370	83,892
BIOLOGICAL ASPECTS	24,627	21,504	19,715	22,816	25,164	28,269	25,815	24,856
SOCIAL ASPECTS	19,977	19,543	21,318	27,457	30,600	31,129	28,110	25,166
PSYCHOLOGY, NEC	2,383	12,283	16,202	21,618	35,593	27,061	32,445	33,870
SOCIAL SCIENCES, TOTAL	130,620	117,167	134,020	184,729	207,258	203,948	197,174	132,261
ANTHROPOLOGY	4,533	5,147	5,882	7,432	7,115	7,757	5,503	11,994
ECONOMICS	19,580	19,931	21,581	52,748	52,239	51,414	56,704	52,382
HISTORY	929	843	1,017	1,426	1,451	1,688	1,069	3,200
LINGUISTICS	2,451	2,563	2,300	2,261	2,462	2,997	2,745	3,629
POLITICAL SCIENCE	3,554	4,064	3,837	4,861	8,063	5,890	5,122	10,713
SOCIOLOGY	16,525	19,058	27,457	39,951	32,217	34,903	37,655	21,389
SOCIAL SCIENCES, NEC	83,048	65,561	71,946	76,050	103,711	99,299	88,376	28,954
OTHER SCIENCES, NEC	57,512	73,054	78,368	79,126	109,331	140,334	126,236	244,732

1/ SEE FOOTNOTE 1 AT END OF TABLE 6.

NOTE: DATA FOR EACH YEAR REFLECT SUPPORT FROM THE AGENCIES INCLUDED IN THE SURVEY SYSTEM FOR THAT YEAR.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 12 -- FEDERAL OBLIGATIONS FOR RESEARCH & DEVELOPMENT TO THE 100 UNIVERSITIES AND COLLEGES 1/ RECEIVING THE LARGEST AMOUNTS, BY AGENCY: FY 1982

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	USDA	COM	DOD	ED	DOE	EPA	HHS	INT	NASA	NSF	OTHER*
TOTAL, ALL INSTITUTIONS		4,522,543	256,535	39,132	813,673	34,379	265,155	78,027	2,110,633	21,545	167,744	689,692	76,028
1	JOHNS HOPKINS UNIVERSITY	312,979	128	173	235,955	1,299	2,667	686	60,095	0	1,162	5,727	5,087
2	MASS INST OF TECHNOLOGY	148,837	544	2,104	40,046	0	36,856	612	29,259	464	9,236	29,308	408
3	STANFORD UNIVERSITY	124,289	62	15	29,167	1,301	5,093	1,856	53,875	239	8,468	24,213	0
4	UNIVERSITY OF MARYLAND	97,690	72	378	13,314	1,093	6,059	932	56,334	143	1,928	16,483	264
5	UNIV OF CAL SAN DIEGO	90,896	342	0	14,579	169	2,605	70	31,510	0	7,924	33,693	4
6	UNIV OF CAL LOS ANGELES	89,661	232	36	5,886	231	10,318	1,467	22,971	60	3,437	12,623	0
7	COLUMBIA UNIV MAIN DIV	88,879	0	0	6,958	0	5,269	0	52,565	712	1,983	19,834	538
8	HARVARD UNIVERSITY	85,757	50	0	3,478	9	3,263	1,700	60,988	44	4,381	11,806	38
9	CORNELL UNIVERSITY	83,936	7,477	77	7,443	168	2,639	1,452	31,696	348	2,013	30,623	0
10	UNIV OF WIS-MADISON	82,417	5,855	1,631	5,609	0	8,115	0	42,766	147	3,591	14,070	633
TOTAL 1ST 10 INSTITUTIONS		1,205,341	15,450	4,414	362,435	4,270	82,884	8,775	475,479	2,157	44,123	198,380	6,974
11	UNIVERSITY OF MICHIGAN	79,794	524	803	5,718	575	4,186	1,280	43,637	23	3,903	11,259	7,886
12	YALE UNIVERSITY	78,920	44	0	6,019	195	5,580	0	58,535	2	499	8,046	0
13	UNIVERSITY OF MINNESOTA	78,714	5,993	709	4,185	1,055	3,719	1,679	49,696	279	1,583	9,808	8
14	UNIV OF PENNSYLVANIA	76,907	189	0	5,595	290	3,797	73	54,768	26	511	11,528	130
15	UNIV OF CAL SAN FRANCISCO	64,752	161	0	2,205	0	2,302	95	60,020	5	728	1,236	0
16	UNIV OF CAL BERKELEY	65,555	3,057	152	15,462	330	2,284	322	19,449	24	4,567	18,320	1,588
17	UNIV OF ILL URBANA	63,923	5,427	0	11,002	2,291	6,559	3,308	11,017	74	1,391	20,216	2,638
18	UNIVERSITY OF CHICAGO	54,182	140	0	924	0	2,836	116	34,584	0	4,562	10,625	395
19	WASHINGTON UNIVERSITY	52,839	0	0	1,120	44	735	775	45,168	0	1,682	3,315	0
20	PENNSYLVANIA STATE UNIV	50,809	6,591	234	19,996	0	2,277	573	12,269	87	1,943	6,392	447
TOTAL 1ST 20 INSTITUTIONS		1,873,736	37,576	6,312	434,661	9,050	117,159	16,996	864,622	2,677	65,492	299,125	20,066
21	UNIV OF SOUTHERN CAL	50,402	85	863	12,801	0	1,367	357	27,145	473	1,337	5,909	65
22	DUKE UNIVERSITY	50,397	204	108	2,893	0	2,147	1,572	39,064	0	234	4,142	33
23	UNIVERSITY OF ROCHESTER	46,427	93	52	2,557	0	9,162	507	29,057	0	179	4,820	0
24	UNIV OF TEXAS AT AUSTIN	44,767	274	0	17,035	0	9,966	0	7,001	0	2,812	6,875	804
25	YESHIVA UNIVERSITY	44,237	0	0	229	147	0	0	42,967	0	0	894	0
26	UNIVERSITY OF COLORADO	43,786	129	1,634	3,274	337	3,342	376	24,546	288	3,565	6,289	6
27	NEW YORK UNIVERSITY	43,643	0	50	3,648	982	4,070	1,265	29,316	0	425	3,887	0
28	GEORGIA INSTITUTE OF TECH	43,530	22	120	35,985	0	950	381	1,750	101	1,370	2,430	421
29	UNIV OF NC AT CHAPEL HILL	41,890	136	299	1,836	1,282	623	3,314	30,684	0	66	3,469	181
30	OHIO STATE UNIVERSITY	41,073	6,185	373	6,372	1	1,823	1,018	10,880	94	1,484	5,832	7,011
TOTAL 1ST 30 INSTITUTIONS		2,323,888	44,704	9,811	521,291	11,799	150,609	25,786	1,107,032	3,633	76,964	343,672	28,587
31	UNIVERSITY OF UTAH	39,886	50	0	3,990	0	4,012	539	23,748	1,243	500	5,804	0
32	UNIVERSITY OF PITTSBURGH	39,397	172	193	2,707	2,849	1,727	705	25,690	0	898	4,361	95
33	PURDUE UNIVERSITY	38,142	5,246	61	4,662	0	3,505	200	8,998	75	3,164	10,057	2,174
34	BAYLOR COL OF MEDICINE	36,972	2,991	96	1,033	997	0	313	30,801	0	375	366	0
35	UNIVERSITY OF IOWA	36,971	73	0	2,567	145	93	476	28,118	0	3,253	2,246	0
36	CALIFORNIA INST OF TECH	36,672	106	291	6,747	0	3,764	89	7,390	964	4,686	12,635	0
37	UNIVERSITY OF ARIZONA	35,688	2,928	296	4,386	82	1,103	644	15,158	107	3,541	6,700	743
38	MICHIGAN STATE UNIVERSITY	35,667	5,923	83	1,970	1,549	2,280	117	10,420	711	718	7,699	4,197
39	UNIVERSITY OF FLORIDA	35,106	6,200	30	3,720	0	956	820	13,311	172	846	4,189	4,862
40	CASE WESTERN RESERVE UNIV	34,834	0	159	3,241	0	528	568	24,126	0	2,200	3,950	62
TOTAL 1ST 40 INSTITUTIONS		2,693,223	68,393	11,020	556,314	17,421	168,577	30,257	1,294,792	6,905	97,145	401,679	40,720
41	OREGON STATE UNIVERSITY	33,245	5,989	3,618	4,706	0	731	1,303	4,414	753	533	7,580	3,618
42	TEXAS A & M UNIVERSITY	33,144	12,192	1,884	3,005	0	1,068	566	3,143	131	2,364	5,901	2,890
43	NORTHWESTERN UNIVERSITY	33,117	0	0	3,627	868	1,630	0	16,612	59	447	8,192	1,682
44	WOODS HOLE OCEANOGRAPHIC INST	32,877	0	1,930	12,592	0	821	329	0	719	506	15,980	0
45	UNIV OF CAL DAVIS	32,700	4,832	0	395	0	4,044	638	14,801	207	289	4,294	3,200
46	BOSTON UNIVERSITY	30,397	0	0	4,145	167	188	0	23,726	0	344	1,761	66
47	INDIANA UNIVERSITY	30,056	65	0	1,102	0	1,721	255	15,657	0	240	10,273	743
48	VANDERBILT UNIVERSITY	28,739	0	60	882	83	349	129	25,514	0	91	1,598	33
49	UNIV ALABAMA BIRMINGHAM	28,731	131	0	308	464	0	118	27,203	0	83	424	0
50	UNIV OF MD COLLEGE PARK	28,355	3,985	509	7,059	242	4,015	24	1,501	89	4,404	6,422	105
TOTAL 1ST 50 INSTITUTIONS		3,004,584	95,587	19,021	594,135	19,245	183,144	33,619	1,427,363	8,863	106,446	464,104	53,057

SEE FOOTNOTES AT END OF TABLE.

TABLE 12 -- FEDERAL OBLIGATIONS FOR RESEARCH & DEVELOPMENT TO THE 100 UNIVERSITIES AND COLLEGES 1/ RECEIVING THE LARGEST AMOUNTS, BY AGENCY: FY 1982

CONTINUED

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	USDA	COM	DOD	ED	DOE	EPA	HHS	INT	NASA	NSF	OTHER*
51	UNIVERSITY OF MIAMI	27,070	0	465	3,015	0	791	193	17,205	37	773	4,591	0
52	UNIVERSITY OF VIRGINIA	25,688	218	50	2,364	299	2,838	282	15,276	162	808	3,391	0
53	CARNEGIE-MELLON UNIV	25,463	0	87	11,679	0	3,004	181	3,090	0	589	6,749	84
54	UNIVERSITY OF CONNECTICUT	24,972	884	290	2,199	0	759	0	17,347	47	320	3,106	0
55	UNIVERSITY OF NEW MEXICO	24,724	29	75	16,005	0	649	0	6,092	37	624	1,213	0
56	U TEX HLTH SCI CTR DALLAS	23,966	0	0	0	0	0	0	23,452	0	187	327	0
57	PRINCETON UNIVERSITY	23,668	72	107	4,355	0	3,151	0	4,009	0	2,400	9,574	0
58	COLORADO STATE UNIVERSITY	22,614	4,492	507	2,381	0	1,524	970	4,475	1,445	849	5,204	665
59	UNIV OF MD BALT PROF SCH	22,355	55	0	2,758	0	344	558	18,043	0	39	528	0
60	SUNY AT STONY BROOK	22,221	0	0	71	0	2,092	0	12,714	0	755	6,569	0
TOTAL 1ST 60 INSTITUTIONS		3,247,325	101,337	20,702	638,992	19,544	198,296	35,803	1,549,067	10,611	113,790	505,378	53,806
61	LOUISIANA STATE UNIV	22,141	3,444	1,370	1,236	0	1,219	0	10,115	82	193	1,757	2,725
62	UNIV OF CAL IRVINE	22,003	81	0	2,862	0	3,117	273	11,281	33	416	3,707	233
63	NM MEXICO STATE UNIV	21,068	1,832	0	13,381	305	1,003	194	474	77	1,986	800	1,014
64	ROCKEFELLER UNIVERSITY	20,807	50	0	0	0	810	0	18,144	0	189	1,612	0
65	UNIVERSITY OF CINCINNATI	20,126	0	0	1,268	0	255	2,715	13,794	0	597	1,497	0
66	UNIV OF HAWAII-MANOA	20,000	2,306	0	2,873	0	1,462	0	5,203	144	3,837	3,868	307
67	CUNY MT SINAI SCH OF MED	19,433	0	0	0	0	0	60	18,938	0	0	435	0
68	VA POLYTECH INST & ST U	18,680	4,575	73	4,090	0	1,535	100	1,453	1,350	2,148	3,061	295
69	EMORY UNIVERSITY	18,574	0	0	46	10	224	0	17,147	0	288	859	0
70	U TENNESSEE KNOXVILLE	18,302	4,677	125	1,989	0	5,944	33	2,858	0	993	1,353	230
TOTAL 1ST 70 INSTITUTIONS		3,448,359	118,302	22,270	666,737	19,859	213,865	39,180	1,648,475	12,297	124,437	524,327	58,610
71	N C STATE UNIV AT RALEIGH	18,158	6,893	30	1,964	0	970	2,705	2,060	153	804	2,445	134
72	UNIV OF MASS AT AMHERST	18,034	2,372	75	4,861	0	979	56	2,431	117	631	6,427	85
73	BROWN UNIVERSITY	18,031	0	40	2,272	0	2,042	0	4,943	32	707	7,995	0
74	RUTGERS THE ST UNIV OF NJ	17,482	2,936	75	1,558	0	462	135	6,764	137	74	5,334	7
75	UNIVERSITY OF DAYTON	17,094	0	0	16,045	0	60	306	52	0	505	49	77
76	UNIVERSITY OF GEORGIA	16,991	5,883	900	502	7	2,362	375	3,480	43	22	3,388	29
77	TUFTS UNIVERSITY	16,808	5,824	0	105	0	565	2	9,556	0	172	579	0
78	VIRGINIA COMMONWLTN UNIV	16,485	0	0	897	0	15	0	14,946	0	276	336	15
79	GEORGE WASHINGTON UNIV	16,279	320	39	3,636	428	326	50	9,367	2	1,346	765	0
80	SUNY AT BUFFALO	16,123	0	0	362	0	206	0	11,877	0	383	3,295	0
TOTAL 1ST 80 INSTITUTIONS		3,619,844	142,535	23,429	698,939	20,294	221,852	42,809	1,713,951	12,781	129,357	554,940	58,957
81	UTAH STATE UNIVERSITY	16,047	2,218	0	9,790	241	67	0	539	155	1,439	1,598	0
82	UNIVERSITY OF KANSAS	15,450	86	15	1,375	374	218	0	9,852	0	1,730	1,724	76
83	U TEXAS SYSTEM CANCER CTR	15,346	0	0	0	0	0	0	15,331	15	0	0	0
84	WASHINGTON STATE UNIV	15,262	4,813	100	1,173	32	543	570	3,011	81	232	2,598	2,109
85	UNIV OF MISSOURI COLUMBIA	15,139	5,348	75	1,175	0	240	295	6,231	80	153	1,542	0
86	TEMPLE UNIVERSITY	14,816	6	42	397	84	0	307	12,849	0	16	1,022	93
87	UNIVERSITY OF KENTUCKY	14,764	5,678	50	505	0	393	469	5,854	67	125	1,449	174
88	U TEX HLTH SCI CTR S ANTO	14,456	0	0	0	0	0	28	14,055	0	85	288	0
89	UNIV OF RHODE ISLAND	13,996	1,077	1,953	2,821	0	189	1,665	596	72	25	5,598	0
90	U TEX HLTH SCI CTR HOUSTN	13,896	0	0	0	0	224	447	12,661	0	185	379	0
TOTAL 1ST 90 INSTITUTIONS		3,769,026	161,761	25,664	716,175	21,025	223,726	46,590	1,794,930	13,251	133,347	571,138	61,409
91	FLORIDA STATE UNIVERSITY	13,410	40	289	4,657	0	1,608	746	2,370	0	436	3,181	83
92	UNIV OF CAL SANTA BARBARA	13,329	0	0	2,761	144	1,223	411	2,741	38	507	5,504	0
93	UNIV OF VT & ST AGRIC COL	13,000	1,648	0	336	0	0	114	9,944	70	125	763	0
94	RENSSELAER POLYTECH INST	12,447	49	0	3,313	180	1,416	250	1,745	0	1,487	3,778	229
95	MAYNE STATE UNIVERSITY	12,380	0	0	865	0	270	153	9,072	0	56	1,805	59
96	GEORGETOWN UNIVERSITY	12,259	727	0	2,537	0	1,250	0	6,893	0	0	852	0
97	UNIV OF ILL MED CTR CHGO	12,068	0	0	0	0	0	157	11,819	0	0	92	0
98	BRANDEIS UNIVERSITY	11,558	0	0	164	0	539	0	7,725	0	246	2,199	685
99	UNIV OF NEBRASKA-LINCOLN	11,442	3,682	0	365	0	401	91	989	81	220	1,723	3,890
100	CAL OF MED & DENT OF N J	10,933	0	0	454	0	0	120	9,718	0	0	641	0
TOTAL 1ST 100 INSTITUTIONS		3,891,742	167,707	25,953	731,627	21,349	230,433	48,632	1,857,946	13,440	136,424	591,676	66,355

1/ DOES NOT INCLUDE R&D OBLIGATIONS TO UNIVERSITY-ASSOCIATED FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS (FFROC'S).

* INCLUDES DOT, AID, HUD, LABOR, AND NRC.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 13 — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY FIELD: JANUARY 1976 - JANUARY 1983 1/

FIELD	1976	1977	1978	1980	1981	1982	1983
TOTAL	288,322	297,856	307,757	324,249	334,487	349,310	358,824
ENGINEERS	28,495	30,083	30,997	33,737	34,840	36,335	37,696
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1,133	1,144	1,132	1,407	1,262	1,323	1,330
CHEMICAL ENGINEERS	1,861	1,924	1,999	2,352	2,283	2,263	2,417
CIVIL ENGINEERS	5,032	5,161	5,366	5,529	5,716	6,091	6,375
ELECTRICAL ENGINEERS	6,932	6,929	7,199	8,154	8,583	9,036	9,598
MECHANICAL ENGINEERS	5,302	5,490	5,651	6,074	6,323	6,637	6,731
OTHER ENGINEERS	8,235	9,435	9,650	10,221	10,673	10,985	11,245
PHYSICAL SCIENTISTS	31,427	32,120	32,839	33,554	34,069	34,463	34,660
ASTRONOMERS 2/	-	-	-	955	1,065	1,203	1,071
CHEMISTS	16,581	17,120	17,664	17,614	18,087	18,028	18,242
PHYSICISTS	12,198	12,482	12,778	13,007	12,914	13,268	13,551
OTHER PHYSICAL SCIENTISTS	2,648	2,518	2,397	1,978	2,003	1,964	1,796
ENVIRONMENTAL SCIENTISTS	8,566	9,337	9,618	9,960	10,183	10,195	10,144
ATMOSPHERIC SCIENTISTS	720	785	962	943	918	886	1,064
EARTH SCIENTISTS	6,494	6,945	6,987	6,569	6,634	6,678	6,531
OCEANOGRAPHERS	1,352	1,607	1,669	1,663	1,731	1,640	1,679
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	-	785	900	991	870
MATHEMATICAL AND COMPUTER SCIENTISTS	29,916	31,996	33,034	35,957	38,986	42,297	45,639
MATHEMATICIANS	24,137	25,439	25,993	27,079	28,578	29,943	31,303
COMPUTER SCIENTISTS	5,779	6,557	7,041	8,878	10,408	12,354	14,336
LIFE SCIENTISTS	114,582	117,441	122,956	133,702	137,773	146,337	151,524
AGRICULTURAL SCIENTISTS	14,181	14,362	15,022	15,899	16,128	16,445	16,599
BIOLOGICAL SCIENTISTS	40,025	42,618	43,597	44,803	46,351	46,739	47,881
MEDICAL SCIENTISTS	60,376	60,461	64,337	67,116	68,625	72,997	74,915
OTHER LIFE SCIENTISTS 2/	-	-	-	5,884	6,669	10,166	12,129
PSYCHOLOGISTS	22,925	23,699	23,752	23,257	23,386	23,697	23,695
SOCIAL SCIENTISTS	52,411	53,180	54,561	54,082	55,250	55,986	55,466
ECONOMISTS	13,133	13,865	14,087	14,672	15,077	15,455	15,550
POLITICAL SCIENTISTS	11,343	11,216	11,352	11,194	11,574	11,832	11,803
SOCIOLOGISTS	15,182	15,538	15,409	14,501	14,688	14,638	14,180
OTHER SOCIAL SCIENTISTS	12,753	12,561	13,713	13,715	13,911	14,061	13,933

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 14 -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY TYPE OF INSTITUTION AND STATUS: SELECTED YEARS

TYPE OF INSTITUTION AND STATUS	1967	1969	1971	1973	1975	1977	1978	1980	1981	1982	1983
ALL INSTITUTIONS	212,855	231,756	257,904	264,887	278,919	297,856	307,757	324,249	334,487	349,310	358,824
FULL TIME	170,557	187,082	209,416	216,424	223,336	236,278	242,170	254,990	259,696	267,771	272,955
PART TIME	42,298	44,674	48,488	48,463	55,583	61,578	65,587	69,259	74,791	81,539	85,869
INSTITUTIONS GRANTING:											
DOCTORATE IN S&E	142,676	154,424	171,238	174,474	180,330	193,204	200,366	218,021	223,832	232,043	236,560
FULL TIME	114,446	124,604	140,339	143,393	148,096	159,848	164,732	179,775	183,160	188,742	191,731
PART TIME	28,230	29,820	30,899	31,081	32,234	33,356	35,634	38,246	40,672	43,301	44,829
MASTER'S IN S&E	24,729	29,441	30,080	28,703	34,075	34,790	38,628	37,363	37,856	38,918	40,545
FULL TIME	20,748	25,212	25,597	24,851	27,511	27,118	29,395	27,915	27,940	28,620	29,618
PART TIME	3,981	4,229	4,483	3,852	6,564	7,672	9,233	9,447	9,916	10,298	10,927
BACHELOR'S IN S&E	23,025	21,690	23,198	28,363	27,113	27,411	26,222	26,830	27,608	28,815	29,469
FULL TIME	19,328	17,927	19,623	23,620	22,406	22,437	21,165	20,784	21,229	21,646	22,219
PART TIME	3,697	3,763	3,575	4,743	4,707	4,974	5,057	6,046	6,379	7,169	7,250
NONSCIENCE DEGREES 1/	22,425	26,201	33,388	1,348	1,345	607	858	842	916	687	610
FULL TIME	16,035	19,339	23,857	812	828	467	705	680	708	579	489
PART TIME	6,390	6,862	9,531	536	517	140	153	162	208	108	121
2-YEAR INSTITUTIONS	-	-	-	31,999	36,056	41,844	41,683	41,194	44,275	48,847	51,640
FULL TIME	-	-	-	23,748	24,495	26,408	26,173	25,836	26,659	28,184	28,898
PART TIME	-	-	-	8,251	11,561	15,436	15,510	15,358	17,616	20,663	22,742

1/ DATA FOR 1967 THROUGH 1971 INCLUDE 2-YEAR INSTITUTIONS
AS WELL AS INSTITUTIONS AWARDED DEGREES IN NONSCIENCE FIELDS.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 15 — MALE SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY STATUS: JANUARY 1980 AND JANUARY 1982-83

FIELD	TOTAL			FULL TIME			PART TIME		
	1980	1982	1983	1980	1982	1983	1980	1982	1983
TOTAL	262,591	277,535	283,292	210,775	217,094	219,875	51,816	60,441	63,417
ENGINEERS	32,746	35,117	36,234	25,759	27,090	27,803	6,987	8,027	8,431
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1,365	1,293	1,294	1,117	1,064	1,068	248	229	226
CHEMICAL ENGINEERS	2,272	2,147	2,281	1,827	1,820	1,856	445	327	425
CIVIL ENGINEERS	5,374	5,859	6,090	4,207	4,572	4,779	1,167	1,287	1,311
ELECTRICAL ENGINEERS	8,011	8,843	9,356	6,260	6,657	7,004	1,751	2,186	2,352
MECHANICAL ENGINEERS	5,953	6,496	6,580	4,725	4,948	5,019	1,228	1,548	1,561
OTHER ENGINEERS	9,771	10,479	10,633	7,623	8,029	8,077	2,148	2,450	2,556
PHYSICAL SCIENTISTS	29,739	30,491	30,608	25,502	25,889	25,692	4,237	4,602	4,916
ASTRONOMERS	867	1,098	976	750	932	792	117	166	184
CHEMISTS	14,796	15,146	15,249	12,551	12,728	12,798	2,245	2,418	2,451
PHYSICISTS	12,355	12,566	12,810	10,831	10,915	10,863	1,524	1,651	1,947
OTHER PHYSICAL SCIENTISTS	1,721	1,681	1,573	1,370	1,314	1,239	351	367	334
ENVIRONMENTAL SCIENTISTS	8,985	9,045	9,017	7,775	7,853	7,867	1,210	1,192	1,150
ATMOSPHERIC SCIENTISTS	885	826	971	749	712	817	136	114	154
EARTH SCIENTISTS	5,988	6,012	5,869	5,156	5,214	5,113	832	798	756
OCEANOGRAPHERS	1,468	1,392	1,435	1,343	1,273	1,317	125	119	118
OTHER ENVIRONMENTAL SCIENTISTS	644	815	742	527	654	620	117	161	122
MATHEMATICAL AND COMPUTER SCIENTISTS	29,065	33,633	36,040	21,945	23,503	24,590	7,120	10,130	11,450
MATHEMATICIANS	21,463	23,346	24,272	16,738	17,044	17,343	4,725	6,302	6,929
COMPUTER SCIENTISTS	7,602	10,287	11,768	5,207	6,459	7,247	2,395	3,828	4,521
LIFE SCIENTISTS	103,072	108,828	111,122	84,054	86,780	87,971	19,018	22,048	23,151
AGRICULTURAL SCIENTISTS	14,285	14,599	14,660	13,113	13,197	13,468	1,172	1,402	1,192
BIOLOGICAL SCIENTISTS	34,301	35,126	35,675	30,497	31,049	31,414	3,804	4,077	4,261
MEDICAL SCIENTISTS	52,084	55,560	57,028	38,601	39,926	40,338	13,483	15,634	16,690
OTHER LIFE SCIENTISTS	2,402	3,543	3,759	1,843	2,608	2,751	559	935	1,008
PSYCHOLOGISTS	16,259	16,473	16,493	12,415	12,348	12,337	3,844	4,125	4,156
SOCIAL SCIENTISTS	42,725	43,948	43,778	33,325	33,631	33,615	9,400	10,317	10,163
ECONOMISTS	13,031	13,703	13,800	9,982	10,254	10,341	3,049	3,449	3,459
POLITICAL SCIENTISTS	9,589	10,006	10,020	7,655	7,894	7,903	1,934	2,112	2,117
SOCIOLOGISTS	10,141	10,067	9,833	7,920	7,734	7,598	2,221	2,333	2,235
OTHER SOCIAL SCIENTISTS	9,964	10,172	10,125	7,768	7,749	7,773	2,196	2,423	2,352

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 16 -- FEMALE SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY STATUS: JANUARY 1980 AND JANUARY 1982-83

FIELD	TOTAL			FULL TIME			PART TIME		
	1980	1982	1983	1980	1982	1983	1980	1982	1983
TOTAL	61,658	71,775	75,532	44,215	50,677	53,080	17,443	21,098	22,452
ENGINEERS	991	1,218	1,462	713	860	1,013	278	358	449
AERONAUTICAL AND ASTRONAUTICAL									
ENGINEERS	42	50	36	27	20	23	15	10	13
CHEMICAL ENGINEERS	80	116	136	59	90	96	21	26	40
CIVIL ENGINEERS	155	232	285	118	167	210	37	65	75
ELECTRICAL ENGINEERS	143	193	242	114	132	167	29	61	75
MECHANICAL ENGINEERS	121	141	151	92	90	98	29	51	53
OTHER ENGINEERS	450	506	612	303	361	419	147	145	193
PHYSICAL SCIENTISTS	3,815	3,972	4,052	2,491	2,649	2,684	1,324	1,323	1,368
ASTRONOMERS	88	105	95	68	74	66	20	31	29
CHEMISTS	2,818	2,882	2,993	1,779	1,897	1,950	1,039	985	1,043
PHYSICISTS	652	702	741	492	510	524	160	192	217
OTHER PHYSICAL SCIENTISTS	257	283	223	152	168	144	105	115	79
ENVIRONMENTAL SCIENTISTS	975	1,150	1,127	678	815	821	297	335	306
ATMOSPHERIC SCIENTISTS	58	60	93	44	50	70	14	10	23
EARTH SCIENTISTS	581	666	662	398	450	461	183	216	201
OCEANOGRAPHERS	195	248	244	145	211	203	50	37	41
OTHER ENVIRONMENTAL SCIENTISTS	141	176	128	91	104	87	50	72	41
MATHEMATICAL AND COMPUTER SCIENTISTS ..	6,892	8,664	9,599	4,085	4,877	5,303	2,807	3,787	4,296
MATHEMATICIANS	5,616	6,597	7,031	3,176	3,522	3,695	2,440	3,075	3,336
COMPUTER SCIENTISTS	1,276	2,067	2,568	909	1,355	1,608	367	712	960
LIFE SCIENTISTS	30,630	37,509	40,402	24,101	28,931	30,897	6,529	8,578	9,505
AGRICULTURAL SCIENTISTS	1,614	1,846	1,939	1,327	1,466	1,569	287	380	370
BIOLOGICAL SCIENTISTS	10,502	11,613	12,206	8,217	9,110	9,489	2,285	2,503	2,717
MEDICAL SCIENTISTS	15,032	17,427	17,887	11,715	13,159	13,308	3,317	4,268	4,579
OTHER LIFE SCIENTISTS	3,482	6,623	8,370	2,842	5,196	6,531	640	1,427	1,839
PSYCHOLOGISTS	6,998	7,224	7,202	4,318	4,448	4,451	2,680	2,776	2,751
SOCIAL SCIENTISTS	11,357	12,038	11,688	7,829	8,097	7,911	3,528	3,941	3,777
ECONOMISTS	1,641	1,752	1,750	1,110	1,199	1,213	531	553	537
POLITICAL SCIENTISTS	1,605	1,826	1,783	1,112	1,279	1,248	493	547	535
SOCIOLOGISTS	4,360	4,571	4,347	2,940	3,028	2,860	1,420	1,543	1,487
OTHER SOCIAL SCIENTISTS	3,751	3,889	3,808	2,667	2,591	2,590	1,084	1,298	1,218

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 17 — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY FIELD AND CONTROL: JANUARY 1982 AND JANUARY 1983

FIELD	TOTAL			PUBLIC			PRIVATE		
	1982	1983	PERCENT CHANGE 1982-83	1982	1983	PERCENT CHANGE 1982-83	1982	1983	PERCENT CHANGE 1982-83
TOTAL	349,310	358,824	2.7%	241,012	246,461	2.3%	108,298	112,363	3.8%
ENGINEERS	36,335	37,696	3.7	26,683	27,461	2.9	9,652	10,235	6.0
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1,323	1,330	.5	823	826	.4	500	504	.8
CHEMICAL ENGINEERS	2,263	2,417	6.8	1,614	1,696	5.1	649	721	11.1
CIVIL ENGINEERS	6,091	6,375	4.7	4,917	5,041	2.5	1,174	1,334	13.6
ELECTRICAL ENGINEERS	9,036	9,598	6.2	5,864	6,197	5.7	3,172	3,401	7.2
MECHANICAL ENGINEERS	6,637	6,731	1.4	4,699	4,787	1.9	1,938	1,944	.3
OTHER ENGINEERS	10,985	11,245	2.4	8,766	8,914	1.7	2,219	2,331	5.0
PHYSICAL SCIENTISTS	34,463	34,660	.6	22,662	22,891	1.0	11,801	11,769	-.3
ASTRONOMERS	1,203	1,071	-11.0	906	756	-16.6	297	315	6.1
CHEMISTS	18,028	18,242	1.2	11,967	12,064	.8	6,061	6,178	1.9
PHYSICISTS	13,268	13,551	2.1	8,509	8,780	3.2	4,759	4,771	.3
OTHER PHYSICAL SCIENTISTS	1,964	1,796	-8.6	1,280	1,291	.9	684	505	-26.2
ENVIRONMENTAL SCIENTISTS	10,195	10,144	-.5	8,100	8,118	.2	2,095	2,026	-3.3
ATMOSPHERIC SCIENTISTS	886	1,064	20.1	740	936	26.5	146	128	-12.3
EARTH SCIENTISTS	6,678	6,531	-2.2	5,360	5,172	-3.5	1,318	1,359	3.1
OCEANOGRAPHERS	1,640	1,679	2.4	1,262	1,296	2.7	378	383	1.3
OTHER ENVIRONMENTAL SCIENTISTS	991	870	-12.2	738	714	-3.3	253	156	-38.3
MATHEMATICAL AND COMPUTER SCIENTISTS	42,297	45,639	7.9	31,234	33,656	7.8	11,063	11,983	8.3
MATHEMATICIANS	29,943	31,303	4.5	22,173	23,115	4.2	7,770	8,188	5.4
COMPUTER SCIENTISTS	12,354	14,336	16.0	9,061	10,541	16.3	3,293	3,795	15.2
LIFE SCIENTISTS	146,337	151,524	3.5	97,382	99,902	2.6	48,955	51,622	5.4
AGRICULTURAL SCIENTISTS	16,445	16,599	.9	15,773	15,926	1.0	672	673	.1
BIOLOGICAL SCIENTISTS	46,739	47,881	2.4	30,780	31,364	1.9	15,959	16,517	3.5
MEDICAL SCIENTISTS	72,987	74,915	2.6	42,968	43,274	.7	30,019	31,641	5.4
OTHER LIFE SCIENTISTS	10,166	12,129	19.3	7,861	9,338	18.8	2,305	2,791	21.1
PSYCHOLOGISTS	23,697	23,695	.0	15,969	15,854	-.7	7,728	7,841	1.5
SOCIAL SCIENTISTS	55,986	55,466	-.9	38,982	38,579	-1.0	17,004	16,887	-.7
ECONOMISTS	15,455	15,550	.6	10,077	10,082	.0	5,378	5,468	1.7
POLITICAL SCIENTISTS	11,832	11,803	-.2	7,705	7,738	.4	4,127	4,065	-1.5
SOCIOLOGISTS	14,638	14,180	-3.1	10,040	9,856	-1.8	4,598	4,324	-6.0
OTHER SOCIAL SCIENTISTS	14,061	13,933	-.9	11,160	10,903	-2.3	2,901	3,030	4.4

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 18 — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES
BY GEOGRAPHIC DISTRIBUTION AND FIELD: JANUARY 1983

DIVISION AND STATE	TOTAL	ENGINEERS	PHYSICAL SCIENTISTS	ENVIROM- MENTAL SCIENTISTS	MATH. & COMPUTER SCIENTISTS	LIFE SCIENTISTS	PSYCHOL- OGISTS	SOCIAL SCIENTISTS
TOTAL, ALL INSTITUTIONS ...	358,824	37,696	34,660	10,144	45,639	151,524	23,695	55,466
NEW ENGLAND	30,731	3,313	3,089	815	3,144	14,219	1,871	4,280
CONNECTICUT	6,322	666	543	118	744	2,777	475	999
MAINE	1,095	97	132	74	163	261	106	262
MASSACHUSETTS	19,664	2,185	2,026	465	1,766	9,832	998	2,392
NEW HAMPSHIRE	1,276	134	126	57	131	589	67	172
RHODE ISLAND	1,358	156	168	66	221	323	115	309
VERMONT	1,016	75	94	35	119	437	110	146
MIDDLE ATLANTIC	64,686	6,470	6,822	1,378	9,283	24,524	5,189	11,020
NEW JERSEY	8,410	874	933	216	1,417	2,404	809	1,757
NEW YORK	37,077	3,434	3,728	824	5,287	14,740	2,953	6,111
PENNSYLVANIA	19,199	2,162	2,161	338	2,579	7,380	1,427	3,152
EAST NORTH CENTRAL	60,214	6,583	5,866	1,559	7,801	24,495	4,311	9,599
ILLINOIS	16,948	1,499	1,717	425	2,497	6,675	1,394	2,741
INDIANA	6,927	933	875	159	966	2,433	486	1,075
MICHIGAN	11,444	1,309	1,229	217	1,481	4,213	839	2,156
OHIO	16,059	1,878	1,239	273	1,895	7,476	981	2,317
WISCONSIN	8,836	964	806	485	962	3,698	611	1,310
WEST NORTH CENTRAL	26,184	2,251	2,222	572	2,904	12,460	1,693	4,082
IOWA	5,001	522	405	54	534	2,505	249	732
KANSAS	4,037	380	335	100	446	1,728	389	659
MINNESOTA	5,327	297	479	108	636	2,336	362	1,109
MISSOURI	7,490	567	607	137	836	3,961	423	659
NEBRASKA	2,148	190	229	76	231	941	160	321
NORTH DAKOTA	1,128	151	82	72	130	481	54	158
SOUTH DAKOTA	1,053	144	85	25	91	508	56	144
SOUTH ATLANTIC	55,606	6,287	5,155	1,442	7,514	23,351	3,088	8,769
DELAWARE	809	145	114	78	108	186	35	143
DISTRICT OF COLUMBIA	5,037	380	248	28	386	3,184	162	649
FLORIDA	10,444	1,006	802	378	1,750	3,999	679	1,830
GEORGIA	6,451	927	666	151	909	2,385	399	1,014
MARYLAND	10,000	1,512	1,356	230	1,195	3,878	472	1,357
NORTH CAROLINA	9,000	771	706	186	1,069	4,400	503	1,365
SOUTH CAROLINA	4,371	455	400	68	657	1,921	245	625
VIRGINIA	7,164	835	696	294	1,168	2,625	489	1,057
WEST VIRGINIA	2,330	256	167	29	272	773	104	729
EAST SOUTH CENTRAL	17,665	1,768	1,502	294	2,358	8,151	1,128	2,464
ALABAMA	5,153	560	436	54	768	2,345	338	652
KENTUCKY	3,894	259	353	118	443	1,900	223	598
MISSISSIPPI	2,484	190	220	28	323	1,138	148	437
TENNESSEE	6,134	759	493	94	824	2,768	419	777
WEST SOUTH CENTRAL	31,705	2,928	2,570	918	3,788	15,694	1,612	4,195
ARKANSAS	2,381	150	194	24	221	1,418	86	288
LOUISIANA	5,837	519	421	181	674	3,250	195	597
OKLAHOMA	3,700	398	304	89	461	1,731	176	541
TEXAS	19,787	1,861	1,651	624	2,432	9,295	1,155	2,769
MOUNTAIN	18,270	2,605	1,867	894	2,273	6,841	1,078	2,712
ARIZONA	3,352	532	377	174	433	1,053	209	574
COLORADO	4,892	775	575	218	647	1,564	347	766
IDAH0	1,203	108	104	53	135	570	74	159
MONTANA	1,185	136	127	70	185	410	59	198
NEVADA	697	67	78	89	78	235	24	126
NEW MEXICO	2,671	438	252	103	345	974	172	387
UTAH	3,482	465	283	133	324	1,725	151	401
WYOMING	788	84	71	54	126	310	42	101
PACIFIC	49,653	5,245	5,134	2,201	6,026	20,214	3,387	7,446
ALASKA	353	35	30	70	35	87	29	67
CALIFORNIA	38,036	4,149	4,037	1,500	4,712	15,270	2,769	5,599
HAWAII	1,441	70	108	111	91	731	59	271
OREGON	4,349	331	441	241	538	1,933	221	644
WASHINGTON	5,474	660	518	279	650	2,193	309	865
OUTLYING AREAS	4,110	246	433	71	548	1,575	338	899

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 19 -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES: JANUARY 1982 AND JANUARY 1983

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1983	1982	1983	1982	1983	1982	1983	1982
TOTAL, ALL INSTITUTIONS	358,824	349,310	272,955	267,771	85,869	81,539	305,446	299,705
1 HARVARD UNIVERSITY	6,715	6,302	4,457	4,187	2,258	2,115	5,890	5,871
2 OHIO STATE UNIVERSITY	4,777	4,232	1,806	1,884	2,971	2,348	2,388	2,182
3 UNIV OF WIS-MADISON	3,795	3,729	3,117	3,116	678	613	3,506	3,474
4 JOHNS HOPKINS UNIVERSITY	3,521	3,488	3,329	3,327	192	161	3,395	3,404
5 UNIVERSITY OF MINNESOTA	3,329	3,534	2,862	3,003	467	531	2,791	3,012
6 LOUISIANA STATE UNIV	3,156	3,072	2,627	2,559	529	513	2,729	2,682
7 UNIV OF CAL LOS ANGELES	2,998	2,899	2,189	2,094	809	805	2,578	2,500
8 CORNELL UNIVERSITY	2,625	2,415	2,451	2,285	174	130	2,544I	2,344I
9 UNIVERSITY OF MICHIGAN	2,622	3,064	2,121	2,458	501	606	2,342	2,733
10 UNIVERSITY OF FLORIDA	2,528	2,291	2,359	2,124	169	167	2,423	2,183
TOTAL, 1ST 10 INSTS.	36,066	35,026	27,318	27,037	8,748	7,989	30,587	30,387
11 INDIANA UNIVERSITY	2,514	2,283E	1,815	1,642E	699	641E	2,022	1,846E
12 MASS INST OF TECHNOLOGY	2,456	2,097	2,200	1,896	256	201	2,330	1,996
13 UNIV OF ILL URBANA	2,412	2,563E	2,140	2,246E	272	317E	2,242	1,313E
14 UNIVERSITY OF WASHINGTON	2,408	2,520	1,828	1,941	580	579	2,115I	2,236
15 PURDUE UNIVERSITY	2,408	2,433	2,027	2,049	381	384	2,181	2,204
16 UNIV OF PENNSYLVANIA	2,385	1,896	1,569	1,546	816	350	1,751	1,672
17 PENNSYLVANIA STATE UNIV	2,336	2,283	2,085	2,071	251	212	2,201	2,171
18 TEXAS A & M UNIVERSITY	2,300	2,279	2,300	2,279	0	0	2,300	2,279
19 COLUMBIA UNIV MAIN DIV	2,234	2,227	1,770	1,766	464	461	1,928	1,919
20 UNIV OF CAL BERKELEY	2,230	2,315	1,488	1,504	742	811	1,814	1,884
TOTAL, 1ST 20 INSTS.	59,749	57,922	46,540	45,977	13,209	11,945	51,473	49,910
21 UNIV OF CAL SAN FRANCISCO	2,169	2,113	1,449	1,332	720	781	1,799	1,741
22 UNIVERSITY OF PITTSBURGH	2,110E	2,042E	1,780E	1,733E	330E	309E	1,945E	1,887E
23 NEW YORK UNIVERSITY	2,095	2,086	1,405	1,392	690	694	1,597	1,620I
24 UNIV OF CAL DAVIS	2,005	2,033	1,554	1,562	451	471	1,799	1,813
25 UNIVERSITY OF IOWA	1,996	1,911	1,663	1,594	333	317	1,814	1,781
26 UNIVERSITY OF UTAH	1,989	2,022	1,757	1,784	232	238	1,837	1,872
27 HOWARD UNIVERSITY	1,953	1,631I	1,017	979I	936	652I	1,261	1,129I
28 YALE UNIVERSITY	1,917	2,305	1,746	1,910	171	395	1,832	2,113
29 N C STATE UNIV AT RALEIGH	1,856	1,755	1,725	1,622	131	133	1,775	1,670
30 UNIV OF TEXAS AT AUSTIN	1,854	1,814	1,624	1,569	230	245	1,737	1,684
TOTAL, 1ST 30 INSTS.	79,693	77,634	62,260	61,454	17,433	16,180	68,870	67,223
31 UNIVERSITY OF KENTUCKY	1,838	2,166	1,646	1,892	192	274	1,708	1,984
32 MICHIGAN STATE UNIVERSITY	1,794	1,811	1,694	1,701	100	110	1,734	1,748
33 WASHINGTON UNIVERSITY	1,713	1,661	1,567	1,530	146	131	1,625	1,585
34 UNIVERSITY OF ARIZONA	1,652	1,543	1,468	1,392	184	151	1,544	1,457
35 UNIV OF SOUTHERN CAL	1,652I	1,606E	1,296I	1,274E	356I	332E	1,406I	1,368
36 UNIV OF CAL SAN DIEGO	1,642	1,565	1,329	1,270	313	295	1,491	1,436
37 CASE WESTERN RESERVE UNIV	1,639	1,549	1,367	1,307	272	242	1,459	1,393
38 DUKE UNIVERSITY	1,596	1,653E	1,502	1,563E	94	90E	1,555	1,601E
39 RUTGERS THE ST UNIV OF NJ	1,573	1,602	1,522	1,564	51	38	1,538	1,574
40 UNIVERSITY OF CONNECTICUT	1,571	1,593	1,307	1,337	264	256	1,396	1,452
TOTAL, 1ST 40 INSTS.	96,363	94,383	76,958	76,284	19,405	18,099	84,329	82,824
41 UNIVERSITY OF COLORADO	1,555	1,583	1,416	1,425	139	158	1,476	1,491
42 UNIV OF MD COLLEGE PARK	1,503	1,434	1,276	1,207	227	227	1,355	1,320
43 CUNY MT SINAI SCH OF MED	1,503I	1,462I	1,213I	1,192I	290I	270I	1,301I	1,266I
44 NORTHEASTERN UNIVERSITY	1,499I	1,432	690I	678	809I	754	1,004I	961
45 NORTHWESTERN UNIVERSITY	1,493	1,307	1,252	1,111	241	196	1,330	1,206
46 IOWA ST U OF SCI & TECH	1,483	1,435	1,358	1,300	125	135	1,434	1,376
47 STANFORD UNIVERSITY	1,382	1,362	1,092	1,102	290	260	1,050I	1,095
48 MAYNE STATE UNIVERSITY	1,373	1,627	1,050	1,088	323	539	1,164	1,293
49 BOSTON UNIVERSITY	1,372	1,310	885	886	487	424	1,044	1,020
50 UNIVERSITY OF CHICAGO	1,342	1,399	1,255	1,320	87	79	1,229	1,333
TOTAL, 1ST 50 INSTS.	110,868	108,734	88,445	87,593	22,423	21,141	96,719	95,186

SEE FOOTNOTES AT END OF TABLE.

TABLE 19 — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES: JANUARY 1982 AND JANUARY 1983

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1983	1982	1983	1982	1983	1982	1983	1982
51 UNIVERSITY OF KANSAS	1,335	1,554I	1,287	1,272I	48	282I	1,297I	1,427I
52 UNIV OF MISSOURI COLUMBIA	1,333	1,351	1,196	1,240	137	111	1,243	1,281
53 UNIVERSITY OF CINCINNATI	1,333	1,348	1,115	1,123	218	225	1,179	1,187
54 TEMPLE UNIVERSITY	1,330	1,312	1,103	1,120	227	192	1,301I	1,271I
55 UNIV OF HAWAII-MANOA	1,316	1,323	1,023	1,043	293	280	1,138	1,145
56 CMU COL ALLEGHENY COUNTY	1,311I	1,161I	1,011	981	1,210I	1,063I	995I	881I
57 UNIV ALABAMA BIRMINGHAM	1,273	1,192	1,103	1,049	170	143	1,144	1,088
58 UNIV OF MD BALT PROF SCH	1,272	1,024E	818	646E	454	378E	1,018	761E
59 UNIVERSITY OF MIAHI	1,244E	1,171	1,165E	1,074	99E	97E	1,198	1,111
60 KANS ST U - AG & APP SCI	1,248	1,237	1,094	1,090	194	187	1,153	1,145
TOTAL, 1ST 60 INSTS.	123,883	121,407	98,410	97,308	25,473	24,099	108,389	106,488
61 GEORGE WASHINGTON UNIV	1,240	1,140	639	612	601	528	859	824
62 UNIVERSITY OF ROCHESTER	1,240	1,199E	1,189	1,129E	51	70E	1,208	1,147E
63 U TEX HLTH SCI CTR DALLAS	1,237	1,049	940	778	297	271	1,037	865
64 UNIV OF NC AT CHAPEL HILL	1,228	1,239	1,194	1,206	34	33	1,211	1,222
65 SUNY AT STONY BROOK	1,226	1,166	1,094	1,052	132	114	1,143	1,090
66 SUNY AT BUFFALO	1,222	1,194	901	890	321	304	1,009	985
67 OREGON STATE UNIVERSITY	1,211	1,155	1,057	1,042	154	113	1,104	1,100
68 UNIVERSITY OF GEORGIA	1,196	1,172	1,144	1,124	52	48	1,168	1,146
69 NEW MEXICO STATE UNIV	1,189	1,151	1,116	1,071	73	80	1,150	1,110
70 GEORGIA INSTITUTE OF TECH	1,187	1,156	1,094	1,055	93	101	1,125	1,103E
TOTAL, 1ST 70 INSTS.	136,059	133,028	108,778	107,267	27,281	25,761	119,405	117,083
71 U TEX HLTH SCI CTR S ANTO	1,183	1,070	939	926	244	144	1,036	971
72 WEST VIRGINIA UNIVERSITY	1,168	1,156	1,057	1,021	111	135	1,097	1,077
73 AUBURN UNIVERSITY	1,136	1,026	1,041	935	95	91	1,083	979
74 UNIVERSITY OF OKLAHOMA	1,133	1,077	966	917	167	160	1,058I	921
75 UNIV OF SOUTH CAROLINA	1,122	1,178	992	1,032	130	146	1,022	1,086
76 YESHIVA UNIVERSITY	1,122E	1,122	866E	866E	256E	256E	988E	988
77 U TEX HLTH SCI CTR HOUSTN	1,115	1,103	954	886	161	217	1,020	975
78 UNIVERSITY OF NEW MEXICO	1,103	1,290	792	952	311	338	934	1,092
79 UNIVERSITY OF VIRGINIA	1,101	1,127	1,042	1,047	59	80	1,034I	1,065I
80 VA POLYTECH INST & ST U	1,095	1,097	1,086	1,089	9	8	1,093	1,092
TOTAL, 1ST 80 INSTS.	147,337	144,274	118,513	116,938	28,824	27,336	129,772	127,332
81 VANDERBILT UNIVERSITY	1,053	1,035	889	892	164	143	915	921
82 COLORADO STATE UNIVERSITY	1,050	1,084	1,011	1,037	39	47	1,011	1,039
83 COL OF MED & DENT OF N J	989I	985E	756I	754E	233I	231E	851I	848E
84 EMORY UNIVERSITY	977I	952I	820I	806I	157I	146I	859I	837I
85 SOUTHERN ILL U-CARBONDALE	967	982	801	793	166	189	849	847
86 UNIV OF CAL IRVINE	963	895	771	699	192	196	857	894
87 VIRGINIA COMMONWLTN UNIV	929	899	849	832	80	67	883	862
88 U TENNESSEE KNOXVILLE	929	977	829	850	100	127	869	901
89 GEORGETOWN UNIVERSITY	918	903	849	833	69	70	884	869
90 BAYLOR COL OF MEDICINE	918	892	792	769	126	123	769	794E
TOTAL, 1ST 90 INSTS.	157,030	153,878	126,880	125,203	30,150	28,675	138,522	136,146
91 UNIV OF ILL MED CTR CHGO	912	997	646	722	266	275	755	838
92 WASHINGTON STATE UNIV	905I	901	469I	468	436I	433	714I	710I
93 UNIV OF P R-RIO PIEDRAS	900	943	779	849	121	94	822E	898
94 CLEMSON UNIVERSITY	896I	894	884I	862	121	12	889I	888
95 MED UNIV OF SO CAROLINA	886	931E	778	770E	108	161E	613	729
96 UNIVERSITY OF LOUISVILLE	865	805	672	595	193	210	723	658
97 NEW YORK MEDICAL COLLEGE	864	854	630	619	234	235	739	673
98 U TEXAS SYSTEM CANCER CTR	863	890	799	839	64	51	834	865
99 SUNY DOWNSTATE MED CTR	836I	833I	695I	693I	141I	140I	752I	749I
100 UNIV OF MASS AT AMHERST	830	830	785	785	45	45	807	807
TOTAL, 1ST 100 INSTS.	165,787	162,756	134,017	132,425	31,770	30,331	146,173	143,963

SEE FOOTNOTES AT END OF TABLE.

TABLE 19 -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES: JANUARY 1982 AND JANUARY 1983

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1983	1982	1983	1982	1983	1982	1983	1982
101 TUFTS UNIVERSITY	811I	773	350I	344	461I	429	503I	482
102 U OF ARKANSAS MED SCI CAM	808	805	729	731	79	74	756	755
103 THE OREG HLTH SCI UNIV	784I	781I	516I	515I	268I	266I	612I	610I
104 UNIV OF NEBRASKA-LINCOLN	780	954	753	800	27	154	769	905
105 TEXAS TECH UNIVERSITY	773	750	653	630	120	120	694	684
106 OKLAHOMA STATE UNIVERSITY	773	774	724	705	49	69	749	740
107 CALIF ST UNIV LONG BEACH	763	580I	388	329I	375	251I	514	410I
108 UNIVERSITY OF MISSISSIPPI	739	747	600	614	139	133	142	635I
109 ARIZONA STATE UNIVERSITY	736	759	725	725	11	34	721	737
110 UNIV OF SOUTH FLORIDA	709I	706	585I	583	124I	123	623I	621
TOTAL, 1ST 110 INSTS.	173,463	170,385	140,040	138,401	33,423	31,984	152,260	150,545
111 MISSISSIPPI STATE UNIV	709	724	589	700	20	24	699	712
112 PHILA COL OSTEOPATHIC MED	705	566	108	103	597	463	167	164
113 LOYOLA UNIV - CHICAGO	705	697	427	412	278	285	526	507
114 UNIV OF ARK FAYETTEVILLE	702	677	645	609	57	68	649	651
115 INTER AM U PR-SAN GERMAN	698	599	259	235	439	364	448	398
116 FLORIDA STATE UNIVERSITY	691	681	666	651	25	30	682	663
117 UNIV TENN CTR HEALTH SCI	688	719	528	552	160	167	568	595
118 SAN DIEGO STATE UNIV	682	568I	500	384I	182	184I	558	433I
119 SAN JOSE STATE UNIVERSITY	660	684	374	372	286	312	424	409
120 U OF CAL SYS WIDE PRGMS	658	117	622	111	36	6	637	113
TOTAL, 1ST 120 INSTS.	180,361	176,417	144,858	142,530	35,503	33,887	157,619	155,192
121 U OF HOUSTON CENTRAL CAM	656	672	501	516	155	156	541	570
122 FAIRLEIGH DICKINSON UNIV	655	746E	264	292E	391	454E	365	416E
123 CITY COLLEGES OF CHICAGO	653	659	653	659	0	0	653	659I
124 BRIGHAM YOUNG UNIVERSITY	647	656	576	580	71	76	598	602
125 UNIV OF CAL RIVERSIDE	645	698	575	594	70	104	612	666
126 UNIVERSITY OF IDAHO	644	623	609	589	35	34	628	606
127 LOMA LINDA UNIVERSITY	642E	719I	450E	482I	192E	237I	549I	614I
128 CUNY NY CITY TECH COL	640	400	460	239	180	161	527I	299
129 UNIV OF CAL SANTA BARBARA	633	575	455	423	178	152	542	503
130 CUYAHOGA CMTY COL DIST	631I	573I	196I	191I	435I	382I	358I	326I
TOTAL, 1ST 130 INSTS.	186,807	182,738	149,597	147,095	37,210	35,643	162,996	160,455
131 CARNEGIE-MELLON UNIV	629I	615I	555I	546I	74I	69I	587I	574I
132 SUNY NASSAU CMTY COLLEGE	629	421	269	242	360	179	352	363I
133 ST LOUIS COMMUNITY COL	624I	571	240I	234	384I	337	383I	352
134 INTER AM U PR-CTRL OFF	621	570	239	254	382	316	372	379I
135 CAL POLY ST U SAN LUIS OB	620	615	507	520	113	95	544	550
136 SYRACUSE UNIVERSITY	618	575	496	498	122	77	552	534
137 UNIV OF VT & ST AGRIC COL	613	628	571	575	42	53	587	595
138 UNIV OF P R-MED SCI CMPUS	610	592	522	509	88	83	522	560
139 DARTMOUTH COLLEGE	608	620	356	313	252	307	392	391
140 TULANE UNIVERSITY	597	591	526	528	71	63	548	548
TOTAL, 1ST 140 INSTS.	192,976	188,536	153,878	151,314	39,098	37,222	167,838	165,304
141 ST LOUIS UNIVERSITY	590	609	489	490	101	119	523	530
142 MONTANA STATE UNIVERSITY	586	541I	485	475I	101	66I	526	509I
143 UNIVERSITY OF DELAWARE	583	585	566	567	17	18	574	576
144 NORTHERN VA COMMUNITY COL	582	554	225	223	357	331	329	330
145 UNIV OF ILL CHICAGO CIR	581	613	510	528	71	85	531	556
146 SAN FRANCISCO STATE UNIV	559	443	299	245	260	198	409	320
147 CALIF ST POLY UNIV POMONA	547	541	334	316	213	225	401	394
148 PRINCETON UNIVERSITY	547	554	501	504	46	50	527	532
149 UNIV OF WIS-MILWAUKEE	545	560	304	411	241	149	413	461
150 CALIFORNIA INST OF TECH	540	545	526	528	14	17	534	537
TOTAL, 1ST 150 INSTS.	198,636	194,081	158,117	155,601	40,519	38,480	172,607	170,051

SEE FOOTNOTES AT END OF TABLE.

TABLE 19 -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES: JANUARY 1982 AND JANUARY 1983

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1983	1982	1983	1982	1983	1982	1983	1982
151 UNIVERSITY OF WYOMING	539	609	511	570	28	39	525	589
152 CALIF ST UNIV FULLERTON	537	498	268	268	269	230	347I	302
153 MIAMI-DADE CMTY COLLEGE	536	549	317	326	219	223	411	427
154 LONG ISLAND UNIVERSITY	529I	509I	308I	303I	221I	206I	388I	373I
155 MARQUETTE UNIVERSITY	517	553	293	307	224	246	367	386
156 CALIF ST UNIV SACRAMENTO	517	534I	371	386I	146	148I	421	432I
157 SUNY AT ALBANY	506	493	430	424	76	69	453	444
158 SINCLAIR COMMUNITY COL	504	449	160	152	344	297	253	224E
159 SOUTH DAKOTA STATE UNIV	502I	501	481I	480	21I	21	492I	492
160 MONTGOMERY COLLEGE	499I	455I	171I	167I	328I	288I	294I	270I
TOTAL, 1ST 160 INSTS.	203,822	199,231	161,427	158,984	42,395	40,247	176,562	173,994
161 MEDICAL COL OF GEORGIA	497	630	393	480	104	150	436	555
162 MAKE FOREST UNIVERSITY	497	479	489	466	8	13	492	470
163 CALIF ST UNIV NORTHRIDGE	487E	487	304E	304	183E	183	353E	353
164 KENT STATE UNIVERSITY	486	488	422	436	64	52	450	453
165 NORTH DAKOTA STATE UNIV	485	487	464	480	21	7	472	484
166 OHIO UNIVERSITY	480	467	386	372	94	95	433	416
167 MRIGHT STATE UNIVERSITY	474	523	392	433	82	96	394	439
168 EAST CAROLINA UNIVERSITY	473	473	413	413	60	60	466	457
169 U TEX MED BRNCH GALVESTON	471	450	471	450	0	0	471	450
170 CHEYNEY STATE COLLEGE	469I	456	469I	456	0I	0	469I	456
TOTAL, 1ST 170 INSTS.	208,641	204,171	165,630	163,274	43,011	40,897	181,002	178,525
171 UTAH STATE UNIVERSITY	467	451	441	416	26	35	452	432
172 ROCKEFELLER UNIVERSITY	456	432	435	413	21	19	443	423
173 CUNY QUEENS COLLEGE	445I	427	263I	256	182I	171	341I	328
174 NEW YORK INST TECHNOLOGY	444I	424	201I	198	243I	226	286I	274
175 CALIF ST UNIV LOS ANGELES	442	444	247	251	195	193	314	318
176 UNIV OF MAINE ORONO	439	436	404	406	35	30	421	419
177 RENSSELAER POLYTECH INST	435	427	405	391	30	36	415	404
178 CALIF STATE UNIV FRESNO	433	415	316	310	117	105	348I	342E
179 CUNY CITY COLLEGE	432I	430	351I	350	81I	80	381I	379
180 MIAMI UNIVERSITY (OHIO)	431	362	355	344	76	18	380	351
TOTAL, 1ST 180 INSTS.	213,065	208,419	169,048	166,609	44,017	41,810	184,787	182,202
181 FLORIDA INST OF TECH	426	376	155	157	271	219	241	244
182 ROCHESTER INST TECHNOLOGY	426	417	212	212	214	205	284	204
183 N J INST OF TECHNOLOGY	425	392	275	265	150	127	304	302
184 UNIVERSITY OF DAYTON	423	443	319	350	104	93	170	375
185 THE UNIVERSITY OF ALABAMA	421	420	384	365	37	55	402	359
186 UNIV OF RHODE ISLAND	418	418	418	418	0	0	418	418
187 SAN ANTONIO CMTY COL DIST	417I	390	244I	238	173I	152	350I	328I
188 U OF NEB MED CTR AT OMAHA	414I	412I	346I	345I	68I	67I	372I	370I
189 YOUNGSTOWN ST UNIVERSITY	413	349	223	202	190	147	223	263
190 CUNY BROOKLYN COLLEGE	411	411	263	262	148	149	321	314
TOTAL, 1ST 190 INSTS.	217,259	212,447	171,887	169,423	45,372	43,024	187,875	185,382
191 ILLINOIS STATE UNIVERSITY	411	420	341	364	70	56	357	386
192 US AIR FORCE ACADEMY	406I	390	406I	390	0I	0	406I	390
193 UNIVERSITY OF NOTRE DAME	402	402	372	364	30	38	390	383
194 NORTHERN ILLINOIS UNIV	400	398	348	351	52	47	372	370
195 UNIVERSITY OF TOLEDO	399	379	293	274	106	105	333	315
196 INST OF AGRI UNIV OF TENN	399	405	399	405	0	0	399	405
197 UNIVERSITY OF N DAKOTA	395	386	351	332	44	54	366	346
198 UNIV OF NEW HAMPSHIRE	392	391	377	374	15	17	387	386
199 BROWN UNIVERSITY	391	396	371	372	20	24	381	383
200 UNIV OF TEX AT ARLINGTON	388	400	309	316	79	84	334	343
TOTAL, 1ST 200 INSTS.	221,242	216,414	175,454	172,965	45,788	43,449	191,604	189,091
TOTAL, ALL OTHER INSTS.	137,582	132,896	97,501	94,806	40,081	38,090	113,841	110,613

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED.
DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 20 — FULL-TIME-EQUIVALENT SCIENTISTS AND ENGINEERS EMPLOYED IN RESEARCH AND DEVELOPMENT AT UNIVERSITIES AND COLLEGES: JANUARY 1978 AND JANUARY 1982-83

INSTITUTIONAL RANKING	R&D FTE			TOTAL FTE		
	1983	1982	1978	1983	1982	1978
TOTAL, ALL INSTITUTIONS	60,265	59,473	55,962	305,447	299,705	271,656
1 JOHNS HOPKINS UNIVERSITY	2,542	2,671I	493I	3,395	3,404	2,086
2 UNIV OF MICH-MADISON	1,906	1,825	1,724	3,506	3,474	3,334
3 UNIV OF CAL SAN FRANCISCO	1,122	913	315I	1,799	1,741	1,144I
4 YALE UNIVERSITY	1,102	1,237	1,029	1,832	2,113	1,755I
5 CORNELL UNIVERSITY	1,094I	1,075I	1,236	2,544I	2,344I	2,443
6 TEXAS A & M UNIVERSITY	987	946	596I	2,300	2,279	2,072
7 UNIV OF CAL DAVIS	974	818	401I	1,799	1,813	1,356I
8 LOUISIANA STATE UNIV	954	920	436	2,729	2,682	2,102
9 UNIV OF CAL SAN DIEGO	949	846	302I	1,491	1,436	993I
10 UNIV OF CAL LOS ANGELES	936	766E	593I	2,578	2,500	2,182I
TOTAL, 1ST 10 INSTS.	12,546	12,018	7,330	23,973	23,787	19,669
11 WASHINGTON UNIVERSITY	920	886	446	1,625	1,585	1,232
12 MASS INST OF TECHNOLOGY	845I	752I	880I	2,330	1,996	2,237
13 UNIV OF CAL BERKELEY	845	808	493I	1,814	1,884	1,770I
14 UNIVERSITY OF ARIZONA	823	732	459I	1,544	1,457	1,569
15 NEW YORK UNIVERSITY	802	590	732	1,597	1,620I	1,511
16 UNIVERSITY OF MICHIGAN	748	956	885	2,342	2,733	3,009
17 UNIVERSITY OF WASHINGTON	721	770	756	2,115I	2,236	2,333
18 DUKE UNIVERSITY	701	736	807	1,555	1,601E	1,442
19 HARVARD UNIVERSITY	671	887	818	5,890	5,871	4,261
20 UNIV OF TEXAS AT AUSTIN	668	644	570	1,737	1,684	1,774
TOTAL, 1ST 20 INSTS.	20,313	19,783	14,180	46,525	46,458	40,807
21 PENNSYLVANIA STATE UNIV	651	613	416	2,201	2,171	1,985
22 UNIV OF ILL URBANA	640	580	819	2,242	1,313E	2,163
23 U TEXAS SYSTEM CANCER CTR	633	657	624	834	865	801
24 COLUMBIA UNIV MAIN DIV	609	630	575I	1,928	1,919	1,721
25 UNIVERSITY OF CHICAGO	604	670	665	1,229	1,333	1,329
26 U TEX HLTH SCI CTR S ANTO	589	549	406	1,036	971	730
27 GEORGIA INSTITUTE OF TECH	579	524	567	1,125	1,103E	1,024
28 UNIV OF MISSOURI COLUMBIA	568	578	316I	1,243	1,281	1,142I
29 UNIVERSITY OF GEORGIA	552	534	519	1,168	1,146	1,166
30 OREGON STATE UNIVERSITY	545	520	598	1,104	1,100	1,113
TOTAL, 1ST 30 INSTS.	26,285	25,641	19,688	60,637	59,662	53,981
31 UNIV OF PENNSYLVANIA	541	613	972I	1,751	1,672	2,967I
32 STANFORD UNIVERSITY	525	547	1,045	1,050I	1,095	1,723
33 UNIVERSITY OF MINNESOTA	524	571	613	2,791	3,012	3,146
34 MICHIGAN STATE UNIVERSITY	512	519	355	1,734	1,748	1,674
35 KANS ST U - AG & APP SCI	501	395	217	1,153	1,145	862
36 CASE WESTERN RESERVE UNIV	465	441	489	1,459	1,393	1,318
37 UNIVERSITY OF ROCHESTER	459	518	594	1,208	1,147E	1,021
38 UNIV OF CAL RIVERSIDE	457	427	125I	612	666	392I
39 UNIVERSITY OF COLORADO	446	460	330I	1,474	1,491	1,281
40 UNIVERSITY OF IOWA	445	475	403	1,814	1,781	1,398
TOTAL, 1ST 40 INSTS.	31,161	30,609	24,836	75,686	74,813	69,763
41 NEW MEXICO STATE UNIV	442	425	119	1,150	1,110	467
42 HOWARD UNIVERSITY	439E	561I	294I	1,261	1,129I	913I
43 N C STATE UNIV AT RALEIGH	423	411	315	1,775	1,670	1,599
44 CUNY MT SINAI SCH OF MED	416I	409I	273I	1,301I	1,266I	802I
45 UNIVERSITY OF FLORIDA	415	277	305I	2,423	2,183	2,024
46 NORTHWESTERN UNIVERSITY	414	374E	307I	1,330	1,204	902
47 SUNY AT STONY BROOK	405	412	256	1,143	1,090	715
48 ROCKEFELLER UNIVERSITY	401	382	347	443	423	384
49 IOWA ST U OF SCI & TECH	385	380	407	1,434	1,376	1,226
50 UNIV OF MD COLLEGE PARK	383	344	149	1,355	1,320	1,322
TOTAL, 1ST 50 INSTS.	35,288	34,588	27,611	89,304	87,589	80,117

SEE FOOTNOTES AT END OF TABLE.

TABLE 20 -- FULL-TIME-EQUIVALENT SCIENTISTS AND ENGINEERS EMPLOYED IN RESEARCH AND DEVELOPMENT AT UNIVERSITIES AND COLLEGES: JANUARY 1978 AND JANUARY 1982-83

- CONTINUED INSTITUTIONAL RANKING	R&D FTE			TOTAL FTE		
	1983	1982	1978	1983	1982	1978
51 UNIVERSITY OF CONNECTICUT	374	403	326	1,396	1,452	1,168
52 YESHIVA UNIVERSITY	374	374	290	988E	988	1,076
53 UNIV OF HAMAMT-MAMDA	370	342	359	1,138	1,145	1,123
54 UNIVERSITY OF KENTUCKY	366	301	375	1,708	1,984	1,285
55 CARNEGIE-MELLON UNIV	363I	360I	198I	587I	574I	528I
56 UNIVERSITY OF UTAH	359E	359I	378I	1,837	1,872	1,426
57 U TEX HLTH SCI CTR DALLAS	358	296	297	1,037	865	712
58 CALIFORNIA INST OF TECH	347	352	307I	534	537	722
59 RUTGERS THE ST UNIV OF NJ	342	365	365I	1,538	1,574	1,452I
60 UNIV OF NEBRASKA-LINCOLN	327	463	253	769	905	764
TOTAL, 1ST 60 INSTS.	38,872	38,207	30,765	100,838	99,489	90,373
61 BOSTON UNIVERSITY	313	225	226	1,044	1,020	705
62 UNIV OF SOUTHERN CAL	309I	214	454I	1,406I	1,368	1,624I
63 BAYLOR COL OF MEDICINE	303	268	271I	769	794E	705I
64 THE OREG HLTH SCI UNIV	300I	302I	319	612I	610I	622
65 UNIVERSITY OF NEW MEXICO	299	365	226	934	1,092	713
66 COLORADO STATE UNIVERSITY	298	338	217	1,011	1,039	875
67 VA POLYTECH INST & ST U	293	302	309	1,093	1,092	978
68 UNIV OF CAL IRVINE	292	248	151I	857	894	533I
69 UNIVERSITY OF VIRGINIA	289	304	229I	1,034I	1,065I	835I
70 INDIANA UNIVERSITY	283	310	291I	2,022	1,846E	1,579I
TOTAL, 1ST 70 INSTS.	41,852	41,085	33,460	111,624	110,311	99,542
71 MISSISSIPPI STATE UNIV	280	241	346E	699	712	632
72 PURDUE UNIVERSITY	280	284	260	2,181	2,204	1,690
73 UNIV ALABAMA BIRMINGHAM	279	267I	298	1,144	1,088	1,005
74 EMORY UNIVERSITY	279I	277I	256I	859I	837I	780I
75 UNIVERSITY OF KANSAS	264I	348I	347I	1,297I	1,427I	1,295I
76 VANDERBILT UNIVERSITY	264	296	284I	915	921	818I
77 UNIVERSITY OF CINCINNATI	261	153	223	1,179	1,187	872
78 GEORGETOWN UNIVERSITY	248	246	215I	884	869	667I
79 TEMPLE UNIVERSITY	236I	243I	262I	1,301I	1,271I	1,147I
80 WOODS HOLE OCEANOGRAPHIC INST	228	210	168	228	210	233E
TOTAL, 1ST 80 INSTS.	44,475	43,654	36,123	122,314	121,040	108,651
81 AUBURN UNIVERSITY	228	227	225	1,083	979	790
82 UNIV OF ILL MED CTR CHGO	222	274	279	755	838	1,025
83 WASHINGTON STATE UNIV	218I	208I	317I	714I	710I	1,162I
84 OKLAHOMA STATE UNIVERSITY	217	201	204	749	740	676
85 PRINCETON UNIVERSITY	216	221	402	527	532	630
86 WAYNE STATE UNIVERSITY	213	214	363I	1,164	1,293	1,360I
87 UNIVERSITY OF DELAWARE	210	220	181	574	576	481
88 CLEMSON UNIVERSITY	210I	208	197	889I	888	789
89 SYRACUSE UNIVERSITY	209	55	219	552	534	537
90 VIRGINIA COMMONWEALTH UNIV	208E	208I	253	883	862	969
TOTAL, 1ST 90 INSTS.	46,630	45,695	38,767	130,207	128,994	117,068
91 UNIVERSITY OF PITTSBURGH	208E	206	451I	1,945E	1,887E	1,708I
92 MED UNIV OF SO CAROLINA	204	68	167I	613	729	616I
93 UNIVERSITY OF OKLAHOMA	204I	125	22	1,058I	921	313
94 LOMA LINDA UNIVERSITY	202E	202I	176I	549I	614I	542I
95 OHIO STATE UNIVERSITY	201	274	544	2,388	2,182	2,984
96 GEORGE WASHINGTON UNIV	201	178	245	859	824	797
97 TUFTS UNIVERSITY	201I	180	88	503I	482	354
98 MONTANA STATE UNIVERSITY	185	121I	114I	526	509I	398I
99 UNIV OF NC AT CHAPEL HILL	184	181	288I	1,211	1,222	1,163
100 UTAH STATE UNIVERSITY	179	177	167	452	432	444
TOTAL, 1ST 100 INSTS.	48,605	47,411	41,033	140,315	138,799	126,387
TOTAL, ALL OTHER INSTS.	11,660	12,062	14,929	165,130	160,905	145,268

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 21 -- SCIENCE/ENGINEERING GRADUATE STUDENTS IN ALL INSTITUTIONS
BY FIELD: 1975-77 AND 1979-82 1/

FIELD	NUMBER							AVERAGE ANNUAL PERCENT CHANGE		
	1975	1976	1977	1979	1980	1981	1982	1975-81	1981-82	1975-82
TOTAL, ALL FIELDS	337,526	344,119	358,323	373,198	383,100	391,660	399,682	2.5	2.0	2.4
ENGINEERING	68,360	67,951	70,383	73,783	76,914	82,694	86,789	3.2	5.0	3.5
AEROSPACE	1,670	1,477	1,518	1,481	1,737	1,883	1,941	2.0	3.1	2.2
AGRICULTURAL	588	639	709	740	742	802	875	5.3	9.1	5.8
BIOMEDICAL	926	946	900	1,051	1,011	1,057	1,116	2.2	5.6	2.7
CHEMICAL	5,034	5,205	5,201	5,605	6,015	6,496	7,189	4.3	10.7	5.2
CIVIL	12,560	11,867	12,751	13,340	13,651	14,616	14,680	2.6	.4	2.3
ELECTRICAL	16,320	15,926	17,406	17,789	19,227	20,193	22,017	3.6	9.0	4.4
ENGINEERING SCIENCE	1,744	1,809	1,824	1,784	1,919	2,080	2,286	3.0	9.9	3.9
INDUSTRIAL	11,663	11,739	11,478	11,984	11,403	12,037	11,764	.5	-2.3	.1
MECHANICAL	8,601	8,374	8,783	9,337	9,975	10,713	11,568	3.7	8.0	4.3
METALLURGICAL/MATERIALS	2,352	2,375	2,559	2,756	2,910	3,125	3,124	4.9	.0	4.1
MINING	412	512	452	389	613	462	449	1.9	-2.8	1.2
NUCLEAR	1,436	1,600	1,491	1,318	1,241	1,283	1,301	-4.0	1.4	-3.2
PETROLEUM	302	376	379	424	503	521	586	9.5	12.5	9.9
ENGINEERING, N.E.C.	4,550	5,103	4,932	5,785	6,167	7,426	7,893	8.5	6.3	8.2
PHYSICAL SCIENCES	26,310	26,628	26,857	26,689	26,949	27,380	28,205	.7	3.0	1.0
ASTRONOMY	711	681	644	638	628	597	632	-2.9	5.9	-1.7
CHEMISTRY	15,287	15,651	16,020	16,101	16,222	16,347	17,019	1.1	4.1	1.5
PHYSICS	10,068	10,067	9,931	9,696	9,895	10,145	10,306	.1	1.6	.3
PHYSICAL SCIENCES, N.E.C.	244	229	262	254	204	291	248	3.0	-14.8	.2
ENVIRONMENTAL SCIENCES	12,289	12,809	13,387	13,585	13,894	14,194	14,916	2.4	5.1	2.8
ATMOSPHERIC SCIENCES	907	930	929	892	923	914	934	-4.4	2.2	.1
GEOSCIENCES	7,204	7,634	7,961	8,431	8,566	8,709	9,526	3.2	9.4	4.1
OCEANOGRAPHY	1,737	1,775	1,957	1,867	1,992	2,082	2,091	3.1	.4	2.7
ENVIRONMENTAL SCIENCES, N.E.C.	2,411	2,470	2,540	2,395	2,413	2,489	2,365	.5	-5.0	-3.3
MATHEMATICAL/COMPUTER SCIENCES	25,333	25,668	25,122	26,707	28,889	32,306	37,021	4.1	14.6	5.6
COMPUTER SCIENCE	8,415	8,981	9,461	12,110	13,925	16,852	20,266	12.3	20.3	13.4
MATHEMATICS AND APPLIED MATHEMATICS	14,934	14,655	13,657	12,648	12,929	13,477	14,707	-1.7	9.1	-2.2
STATISTICS	1,984	2,032	2,004	1,949	2,035	1,977	2,048	-1.1	3.6	.5
LIFE SCIENCES	83,224	88,033	95,712	99,977	102,612	103,237	103,518	3.7	.3	3.2
AGRICULTURAL SCIENCES	10,578	11,164	11,528	12,125	12,326	12,152	12,517	2.3	3.0	2.4
BIOLOGICAL SCIENCES	46,577	48,047	49,648	48,624	47,986	46,946	46,552	.1	-.8	.*
ANATOMY	1,120	1,163	1,198	1,164	1,112	1,102	1,113	-.3	1.0	-.1
BIOCHEMISTRY	3,856	3,884	3,941	4,029	3,977	3,992	4,099	.6	2.7	.9
BIOLOGY	16,336	17,123	17,219	16,021	15,231	14,435	13,648	-2.0	-5.5	-2.5
BIOMETRY/EPIDEMIOLOGY	871	884	1,070	1,133	1,265	1,188	1,172	5.3	-1.3	4.3
BIOPHYSICS	698	594	570	525	485	463	442	-6.6	-4.5	-6.3
BOTANY	3,501	3,779	3,838	3,570	3,551	3,450	3,593	-2.2	4.1	.4
CELL BIOLOGY	651	611	671	748	841	903	1,055	5.6	16.8	7.1
ECOLOGY	789	885	1,020	1,017	1,131	1,056	1,003	5.0	-5.0	3.5
ENTOMOLOGY/PARASITOLOGY	1,574	1,595	1,602	1,697	1,722	1,664	1,540	.9	-7.5	-.3
GENETICS	867	883	1,006	950	948	922	971	1.0	5.3	1.6
MICROBIOLOGY	4,166	4,324	4,535	4,190	4,224	4,113	4,287	-.2	4.2	.4
NUTRITION	2,842	3,137	3,816	3,920	4,091	4,327	4,337	7.3	2.2	6.2
PATHOLOGY	1,542	1,612	1,674	1,850	1,889	1,732	1,706	2.0	-1.5	1.5
PHARMACOLOGY	1,402	1,705	1,793	2,004	2,015	2,021	2,090	3.9	3.4	3.9
PHYSIOLOGY	2,301	2,210	2,109	2,186	2,097	2,136	2,061	-1.2	-3.5	-1.6
ZOOLOGY	3,543	3,303	3,071	2,900	2,686	2,645	2,522	-4.8	-4.7	-4.7
BIOSCIENCES, N.E.C.	318	355	515	718	721	797	913	16.5	14.6	16.3
HEALTH SCIENCES	26,069	28,822	34,536	39,228	42,300	44,139	44,449	9.2	.7	7.9
ANESTHESIOLOGY	55	5	5	20	17	20	41	-15.5	105.0	-4.1
CANCER/ONCOLOGY	59	47	51	47	46	46	57	-4.1	23.9	-.5
CARDIOLOGY	23	2	5	3	38	36	59	7.8	63.9	14.4
DENTISTRY	1,098	1,054	1,147	1,186	1,133	1,072	930	-4.4	-13.2	-2.3
ENDOCRINOLOGY	42	36	37	40	53	51	54	3.3	5.9	3.7
GASTROENTEROLOGY	15	4	18	20	14	9	7	-19.8	76.0	-10.3
HEMATOLOGY	3	4	18	20	14	9	7	20.1	-22.2	12.9
NEUROLOGY	322	300	316	362	365	304	332	-1.0	9.2	.4
NURSING	5,307	7,255	10,943	12,796	13,877	15,703	16,425	19.8	4.6	17.5
OBSTETRICS/GYNECOLOGY	53	59	27	36	6	13	24	-20.9	84.6	-10.7
OPHTHALMOLOGY	30	13	16	6	16	22	22	-5.0	.0	-4.3
OTORHINOLARYNGOLOGY	54	68	57	26	18	15	17	-19.2	13.3	-15.2
PEDIATRICS	183	215	152	131	138	149	154	-3.4	3.4	-2.4
PHARMACEUTICAL SCIENCES	2,245	2,217	2,515	2,487	2,496	2,616	2,551	2.6	-2.5	1.8
PREVENTIVE MEDICINE/COMMUNITY HEALTH	3,832	4,473	4,642	6,428	7,103	7,195	6,757	11.1	-6.1	8.4
PSYCHIATRY	176	147	150	133	-63	104	129	-8.1	21.7	-4.3
PULMONARY DISEASE	7	0	3	1	15	9	14	4.3	55.6	10.4
RADIOLOGY	377	285	310	283	283	277	295	-5.0	6.5	-3.4
SPEECH PATHOLOGY/AUDIOLOGY	7,539	7,725	8,263	8,398	8,735	8,696	8,694	2.4	.1	2.1
SURGERY	153	153	129	79	103	108	115	-5.6	6.5	-4.0
VETERINARY SCIENCES	482	531	562	576	511	485	483	.1	-.4	.*
CLINICAL MEDICINE, N.E.C.	279	302	491	593	802	741	794	17.7	7.2	16.1
HEALTH RELATED, N.E.C.	3,735	3,923	4,689	5,568	6,466	6,462	6,488	9.6	.4	8.2
PSYCHOLOGY	36,201	37,427	38,597	39,763	40,615	40,669	40,205	2.0	-1.1	1.5
SOCIAL SCIENCES	85,809	85,603	88,265	92,694	93,227	91,180	89,028	1.0	-2.4	.5
AGRICULTURAL ECONOMICS	2,105	2,152	2,198	2,199	2,337	2,258	2,227	1.2	-1.4	.8
ANTHROPOLOGY	6,632	6,622	6,728	6,343	6,322	6,118	5,948	-1.3	-2.8	-1.5
ECONOMICS (EXCEPT AGRICULTURAL)	12,093	11,933	12,086	12,157	13,171	13,344	13,832	1.7	3.7	1.9
GEOGRAPHY	3,609	3,803	3,476	3,112	3,272	3,251	3,241	-1.7	-.3	-1.5
HISTORY AND PHILOSOPHY OF SCIENCE	303	322	300	265	280	248	256	-3.3	3.2	-2.4
LINGUISTICS	2,653	2,744	2,555	2,948	2,883	3,035	2,782	2.3	-8.3	.7
POLITICAL SCIENCE	26,374	26,402	27,703	31,095	31,532	31,017	29,613	2.7	-4.5	1.7
SOCIOLOGY	9,872	9,686	9,259	8,583	8,412	8,167	7,634	-3.2	-6.3	-3.6
SOCIOLOGY/ANTHROPOLOGY	1,596	1,239	1,209	1,100	1,078	1,028	1,065	-6.7	3.6	-5.3
SOCIAL SCIENCES, N.E.C.	20,612	20,700	22,751	24,892	23,940	22,734	22,430	1.6	-1.3	1.2

1/ DATA FOR 1978 ARE AVAILABLE FOR DOCTORATE-GRANTING INSTITUTIONS ONLY.
* LESS THAN 0.05 PERCENT CHANGE
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 22 — SCIENCE/ENGINEERING GRADUATE STUDENTS IN ALL INSTITUTIONS BY FIELD,
HIGHEST DEGREE GRANTED, AND ENROLLMENT STATUS: 1982

FIELD	ALL INSTITUTIONS			DOCTORATE-GRANTING			MASTER'S-GRANTING		
	TOTAL	FULL TIME	PART TIME	TOTAL	FULL TIME	PART TIME	TOTAL	FULL TIME	PART TIME
TOTAL, ALL FIELDS	399,682	255,959	143,723	347,414	237,676	109,738	52,268	18,283	33,985
ENGINEERING	86,789	50,576	36,213	80,462	49,106	31,356	6,327	1,470	4,857
AEROSPACE	1,941	1,522	419	1,933	1,519	414	8	3	5
AGRICULTURAL	875	739	136	875	739	136	0	0	0
BIOLOGICAL	1,116	931	185	1,064	908	156	52	23	29
CHEMICAL	7,189	5,608	1,581	6,952	5,546	1,406	237	62	175
CIVIL	14,680	9,809	4,871	13,735	9,513	4,222	945	296	649
ELECTRICAL	22,017	11,533	10,484	20,609	11,293	9,316	1,408	240	1,168
ENGINEERING SCIENCE	2,286	1,364	922	1,996	1,339	657	290	25	265
INDUSTRIAL	11,764	4,057	7,707	10,901	3,816	7,085	863	241	622
MECHANICAL	11,568	7,364	4,204	10,861	7,224	3,637	707	140	567
METALLURGICAL/MATERIALS	3,124	2,478	646	3,030	2,453	577	94	25	69
MINING	449	373	76	424	351	73	25	22	3
NUCLEAR	1,301	1,042	259	1,301	1,042	259	0	0	0
PETROLEUM	586	476	110	580	470	110	6	6	0
ENGINEERING, N.E.C.	7,893	3,280	4,613	6,201	2,893	3,308	1,692	387	1,305
PHYSICAL SCIENCES	28,205	24,071	4,134	26,518	23,365	3,153	1,687	706	981
ASTRONOMY	632	590	42	632	590	42	0	0	0
CHEMISTRY	17,019	14,308	2,711	15,794	13,767	2,027	1,225	541	684
PHYSICS	10,306	9,080	1,226	10,021	8,955	1,066	1,285	125	160
PHYSICAL SCIENCES, N.E.C.	248	93	155	71	53	18	177	40	137
ENVIRONMENTAL SCIENCES	14,916	11,331	3,585	13,469	10,747	2,722	1,447	584	863
ATMOSPHERIC SCIENCES	934	813	121	922	805	117	12	8	4
GEOSCIENCES	9,526	7,455	2,071	8,948	7,219	1,729	578	236	342
OCEANOGRAPHY	2,091	1,593	498	1,934	1,551	383	157	42	115
ENVIRONMENTAL SCIENCES, N.E.C.	2,365	1,470	895	1,665	1,172	493	700	298	402
MATHEMATICAL/COMPUTER SCIENCES	37,021	20,050	16,971	30,428	18,181	12,247	6,593	1,869	4,724
COMPUTER SCIENCE	20,266	9,365	10,901	16,171	8,168	8,003	4,095	1,197	2,898
MATHEMATICS AND APPLIED MATHEMATICS	14,707	9,108	5,599	12,352	8,451	3,901	2,355	657	1,698
STATISTICS	2,048	1,577	471	1,905	1,562	343	143	15	128
LIFE SCIENCES	103,518	70,676	32,842	91,344	66,094	25,250	12,174	4,582	7,592
AGRICULTURAL SCIENCES	12,517	10,050	2,467	11,794	9,675	2,119	723	375	348
BIOLOGICAL SCIENCES	46,552	37,024	9,528	41,985	35,212	6,773	4,567	1,812	2,755
ANATOMY	1,113	969	144	1,113	969	144	0	0	0
BIOCHEMISTRY	6,099	3,820	2,279	4,065	3,802	263	34	18	16
BIOLOGY	13,648	9,192	4,456	10,042	7,732	2,310	3,606	1,440	2,166
BIOMETRY/EPIDEMIOLOGY	1,172	923	249	1,172	923	249	0	0	0
BIOPHYSICS	442	425	17	442	425	17	0	0	0
BOTANY	3,593	3,131	462	3,569	3,118	451	24	13	11
CELL BIOLOGY	1,055	1,029	26	1,035	1,029	26	0	0	0
ECOLOGY	1,003	892	111	970	887	83	33	5	28
ENTOMOLOGY/PARASITOLOGY	1,540	1,340	200	1,540	1,340	200	0	0	0
GENETICS	971	907	64	921	860	61	50	47	3
MICROBIOLOGY	4,287	3,665	622	4,142	3,641	501	145	24	121
NUTRITION	4,337	3,114	1,223	4,081	3,020	1,061	256	94	162
PATHOLOGY	1,706	1,087	619	1,496	1,015	481	210	72	138
PHARMACOLOGY	2,090	1,946	144	2,079	1,945	134	11	1	10
PHYSIOLOGY	2,061	1,808	253	2,061	1,808	253	0	0	0
ZOOLOGY	2,522	2,155	367	2,490	2,137	353	32	18	14
BIOSCIENCES, N.E.C.	913	621	292	747	561	186	166	60	106
HEALTH SCIENCES	44,449	23,602	20,847	37,565	21,207	16,358	6,884	2,395	4,489
ANESTHESIOLOGY	41	21	20	41	21	20	0	0	0
CANCER/ONCOLOGY	57	55	2	57	55	2	0	0	0
CARDIOLOGY	59	28	31	3	3	0	56	25	31
DENTISTRY	930	808	122	930	808	122	0	0	0
ENDOCRINOLOGY	54	51	3	54	51	3	0	0	0
GASTROENTEROLOGY	7	7	0	7	7	0	0	0	0
HEMATOLOGY	6	6	0	6	6	0	0	0	0
NEUROLOGY	332	325	7	318	311	7	14	14	0
NURSING	16,425	6,662	9,763	14,468	6,232	8,236	1,957	430	1,527
OBSTETRICS/GYNECOLOGY	24	20	4	24	20	4	0	0	0
OPHTHALMOLOGY	22	19	3	22	19	3	0	0	0
OTORHINOLARYNGOLOGY	17	16	1	17	16	1	0	0	0
PEDIATRICS	154	144	10	154	144	10	0	0	0
PHARMACEUTICAL SCIENCES	2,551	1,709	842	2,528	1,696	832	23	13	10
PREVENTIVE MEDICINE/ COMMUNITY HEALTH	6,757	4,051	2,706	6,656	4,023	2,633	101	28	73
PSYCHIATRY	129	72	57	129	72	57	0	0	0
PULMONARY DISEASE	14	12	2	14	12	2	0	0	0
RADIOLOGY	295	211	84	295	211	84	0	0	0
SPEECH PATHOLOGY/AUDIOLOGY	8,694	5,449	3,245	6,775	4,493	2,282	1,919	956	963
SURGERY	115	90	25	115	90	25	0	0	0
VETERINARY SCIENCES	483	390	93	458	368	90	25	22	3
CLINICAL MEDICINE, N.E.C.	794	367	427	424	298	126	370	69	301
HEALTH RELATED, N.E.C.	6,488	3,089	3,399	4,069	2,251	1,818	2,419	838	1,581
PSYCHOLOGY	40,205	25,883	14,322	29,073	21,144	7,929	11,132	4,739	6,393
SOCIAL SCIENCES	89,028	53,372	35,656	76,120	49,039	27,081	12,908	4,333	8,575
AGRICULTURAL ECONOMICS	2,227	1,950	277	2,183	1,928	255	44	22	22
ANTHROPOLOGY	5,948	4,105	1,843	5,688	4,027	1,661	260	78	182
ECONOMICS (EXCEPT AGRICULTURAL)	13,832	9,548	4,284	12,744	9,151	3,593	1,088	397	691
GEOGRAPHY	3,241	2,201	1,040	2,773	2,035	738	468	166	302
HISTORY AND PHILOSOPHY OF SCIENCE	256	223	33	256	223	33	0	0	0
LINGUISTICS	2,782	2,139	643	2,653	2,127	526	129	12	117
POLITICAL SCIENCE	29,613	13,681	15,932	23,462	12,086	11,376	6,151	1,595	4,556
SOCIOLOGY	7,634	5,062	2,572	6,969	4,820	2,149	665	242	423
SOCIOLOGY/ANTHROPOLOGY	1,065	647	418	974	602	372	91	45	46
SOCIAL SCIENCES, N.E.C.	22,430	13,816	8,614	18,418	12,040	6,378	4,012	1,776	2,236

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 23 -- SCIENCE/ENGINEERING GRADUATE STUDENTS IN ALL INSTITUTIONS BY FIELD,
TYPE OF CONTROL, SEX, AND LEVEL OF DEPARTMENT: 1982

FIELD	TOTAL	TYPE OF CONTROL		SEX		LEVEL OF DEPARTMENT	
		PUBLIC	PRIVATE	MEN	WOMEN	DOCTORATE	MASTER'S
TOTAL, ALL FIELDS	399,682	269,903	129,779	252,836	146,846	272,482	127,200
ENGINEERING	86,789	53,294	33,495	77,368	9,421	67,741	19,048
AEROSPACE	1,941	1,332	609	1,831	110	1,751	190
AGRICULTURAL	875	821	54	818	57	782	93
BIOMEDICAL	1,116	648	468	897	219	1,006	110
CHEMICAL	7,189	4,822	2,367	6,288	901	6,594	595
CIVIL	14,680	10,040	4,640	12,762	1,918	11,520	3,160
ELECTRICAL	22,017	12,329	9,688	20,466	1,551	18,628	3,389
ENGINEERING SCIENCE	2,286	1,354	932	1,995	291	1,563	723
INDUSTRIAL	11,764	4,962	6,802	9,697	2,067	6,475	5,289
MECHANICAL	11,568	7,525	4,043	10,846	722	10,036	1,532
METALLURGICAL/MATERIALS	3,124	1,850	1,274	2,704	420	2,971	153
MINING	449	377	72	409	40	306	143
NUCLEAR	1,301	1,018	283	1,215	86	1,237	64
PETROLEUM	586	321	265	544	42	559	27
ENGINEERING, N.E.C.	7,893	5,895	1,998	6,896	997	4,313	3,580
PHYSICAL SCIENCES	28,205	20,119	8,086	22,783	5,422	25,046	3,159
ASTRONOMY	632	420	212	531	101	620	12
CHEMISTRY	17,019	12,304	4,715	12,859	4,160	14,964	2,055
PHYSICS	10,306	7,147	3,159	9,239	1,067	9,404	902
PHYSICAL SCIENCES, N.E.C.	248	248	0	154	94	58	190
ENVIRONMENTAL SCIENCES	14,916	12,613	2,303	11,179	3,737	11,282	3,634
ATMOSPHERIC SCIENCES	934	836	98	796	138	822	112
GEOSCIENCES	9,526	7,887	1,639	7,255	2,271	7,345	2,181
OCEANOGRAPHY	2,091	1,798	293	1,514	577	1,915	176
ENVIRONMENTAL SCIENCES, N.E.C.	2,365	2,092	273	1,614	751	1,200	1,165
MATHEMATICAL/COMPUTER SCIENCES	37,021	24,172	12,849	26,592	10,429	21,141	15,880
COMPUTER SCIENCE	20,266	11,984	8,282	14,813	5,453	10,010	10,256
MATHEMATICS AND APPLIED MATHEMATICS	14,707	10,514	4,193	10,313	4,394	9,458	5,249
STATISTICS	2,048	1,674	374	1,466	582	1,673	375
LIFE SCIENCES	103,518	77,677	25,841	47,990	55,528	68,856	34,662
AGRICULTURAL SCIENCES	12,517	12,181	336	9,470	3,047	10,107	2,410
BIOLOGICAL SCIENCES	46,552	34,364	12,188	27,098	19,454	37,601	8,951
ANATOMY	1,113	688	425	692	421	1,088	25
BIOCHEMISTRY	4,099	2,739	1,360	2,639	1,460	4,025	74
BIOLOGY	13,648	9,441	4,207	8,009	5,639	7,851	5,797
BIOMETRY/EPIDEMIOLOGY	1,172	632	540	563	609	1,105	67
BIOPHYSICS	442	252	190	332	110	442	0
BOTANY	3,593	3,314	279	2,293	1,300	3,391	202
CELL BIOLOGY	1,055	568	487	667	388	1,047	8
ECOLOGY	1,003	930	73	663	340	965	38
ENTOMOLOGY/PARASITOLOGY	1,540	1,490	50	1,158	382	1,487	53
GENETICS	971	679	292	449	522	919	52
MICROBIOLOGY	4,287	3,192	1,095	2,392	1,895	3,884	403
NUTRITION	4,337	3,386	951	1,366	2,971	3,292	1,045
PATHOLOGY	1,706	1,143	563	951	755	1,164	542
PHARMACOLOGY	2,090	1,421	669	1,361	729	2,033	57
PHYSIOLOGY	2,061	1,421	640	1,370	691	1,946	115
ZOOLOGY	2,522	2,352	170	1,662	860	2,447	75
BIOSCIENCES, N.E.C.	913	716	197	531	382	515	398
HEALTH SCIENCES	44,449	31,132	13,317	11,422	33,027	21,148	23,301
ANESTHESIOLOGY	41	36	5	13	28	4	37
CANCER/ONCOLOGY	57	56	1	41	16	57	0
CARDIOLOGY	59	0	59	28	31	56	3
DENTISTRY	930	649	281	751	179	66	864
ENDOCRINOLOGY	54	53	1	23	31	54	0
GASTROENTEROLOGY	7	6	1	6	1	7	0
HEMATOLOGY	7	6	1	1	6	2	5
NEUROLOGY	332	178	154	218	114	318	14
NURSING	16,425	11,501	4,924	725	15,700	6,956	9,449
OBSTETRICS/GYNECOLOGY	24	10	14	10	14	21	3
OPHTHALMOLOGY	22	18	4	17	5	19	3
OTORHINOLARYNGOLOGY	17	14	3	14	3	9	8
PEDIATRICS	154	99	55	71	83	113	41
PHARMACEUTICAL SCIENCES	2,551	1,726	825	1,776	775	2,255	296
PREVENTIVE MEDICINE/ COMMUNITY HEALTH	6,757	4,086	2,671	2,982	3,775	4,806	1,951
PSYCHIATRY	129	108	21	63	66	129	0
PULMONARY DISEASE	14	12	2	9	5	12	2
RADIOLOGY	295	211	84	230	65	209	86
SPEECH PATHOLOGY/AUDIOLOGY	8,694	7,461	1,233	1,220	7,474	4,159	4,535
SURGERY	115	90	25	99	16	71	44
VETERINARY SCIENCES	483	406	77	305	178	341	142
CLINICAL MEDICINE, N.E.C.	794	493	301	357	437	245	549
HEALTH RELATED, N.E.C.	6,488	3,918	2,570	2,463	4,025	1,292	5,196
PSYCHOLOGY	40,205	23,400	16,805	16,991	23,214	26,090	14,115
SOCIAL SCIENCES	89,028	58,628	30,400	49,933	39,095	52,326	36,702
AGRICULTURAL ECONOMICS	2,227	2,131	96	1,773	454	1,839	388
ANTHROPOLOGY	5,948	4,293	1,655	2,677	3,271	4,919	1,029
ECONOMICS (EXCEPT AGRICULTURAL)	13,832	8,477	5,355	10,318	3,514	10,959	2,873
GEOGRAPHY	3,241	3,008	233	2,242	999	1,903	1,338
HISTORY AND PHILOSOPHY OF SCIENCE	256	148	108	167	89	253	3
LINGUISTICS	2,782	1,966	816	1,177	1,605	2,292	490
POLITICAL SCIENCE	29,613	17,147	12,466	18,621	10,992	14,553	15,060
SOCIOLOGY	7,634	5,379	2,255	3,585	4,049	6,020	1,614
SOCIOLOGY/ANTHROPOLOGY	1,065	679	386	512	553	594	471
SOCIAL SCIENCES, N.E.C.	22,430	15,400	7,030	8,861	13,569	8,994	13,436

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 24 — SCIENCE/ENGINEERING GRADUATE STUDENTS IN ALL INSTITUTIONS
BY FIELD, CITIZENSHIP, AND RACIAL/ETHNIC BACKGROUND: 1982

FIELD	TOTAL	U.S. CITIZENS						FOREIGN
		BLACK NON- HISPANIC	AMERICAN INDIAN/ ALASKAN NATIVE	ASIAN/ PACIFIC ISLANDER	HISPANIC	WHITE NON- HISPANIC	OTHER OR UNKNOWN	
TOTAL, ALL FIELDS	399,682	13,302	1,194	9,323	9,340	261,650	36,343	68,530
ENGINEERING	86,789	1,256	177	2,780	1,146	45,072	10,965	25,393
AEROSPACE	1,941	10	0	44	21	983	268	615
AGRICULTURAL	875	5	0	13	9	476	10	362
BIOMEDICAL	1,116	18	1	26	12	794	44	221
CHEMICAL	7,189	85	14	312	101	3,850	297	2,530
CIVIL	14,680	140	22	418	223	7,140	1,806	4,931
ELECTRICAL	22,017	303	59	794	317	10,597	3,645	6,302
ENGINEERING SCIENCE	2,286	39	1	57	17	1,186	453	533
INDUSTRIAL	11,764	355	25	307	214	7,522	1,274	2,067
MECHANICAL	11,568	100	14	337	114	5,331	1,601	4,071
METALLURGICAL/MATERIALS	3,124	26	2	97	25	1,614	109	1,251
MINING	449	2	0	14	6	260	36	131
NUCLEAR	1,301	14	4	29	14	723	26	491
PETROLEUM	586	7	0	17	6	259	4	293
ENGINEERING, N.E.C.	7,893	152	35	315	67	4,337	1,392	1,595
PHYSICAL SCIENCES	28,205	553	50	698	496	17,691	1,770	6,947
ASTRONOMY	632	7	2	2	6	491	21	103
CHEMISTRY	17,019	426	32	494	333	10,980	1,227	3,527
PHYSICS	10,306	113	15	192	149	6,043	512	3,282
PHYSICAL SCIENCES, N.E.C.	248	7	1	10	8	177	10	35
ENVIRONMENTAL SCIENCES	14,916	97	24	197	185	11,276	1,311	1,826
ATMOSPHERIC SCIENCES	934	3	1	13	6	694	17	200
GEOSCIENCES	9,526	48	11	97	73	7,354	911	1,032
OCEANOGRAPHY	2,091	17	4	51	95	1,447	106	371
ENVIRONMENTAL SCIENCES, N.E.C.	2,365	29	8	36	11	1,781	277	223
MATHEMATICAL/COMPUTER SCIENCES	37,021	867	82	1,380	539	21,735	3,574	8,844
COMPUTER SCIENCE	20,266	512	39	904	248	11,884	2,267	4,412
MATHEMATICS AND APPLIED MATHEMATICS	14,707	327	38	436	275	8,734	1,276	3,621
STATISTICS	2,048	28	5	40	16	1,117	31	811
LIFE SCIENCES	103,518	2,978	290	2,229	1,946	78,439	6,312	11,324
AGRICULTURAL SCIENCES	12,517	148	25	138	210	8,539	824	2,633
BIOLOGICAL SCIENCES	46,552	1,138	95	1,131	798	34,926	2,859	5,605
ANATOMY	1,113	20	1	22	14	907	56	93
BIOCHEMISTRY	4,099	66	6	131	73	3,013	108	702
BIOLOGY	13,648	521	40	291	380	10,394	964	1,058
BIOMETRY/EPIDEMIOLOGY	1,172	56	7	41	12	888	0	168
BIOPHYSICS	442	4	0	14	3	348	1	72
BOTANY	3,593	36	5	56	38	2,613	212	633
CELL BIOLOGY	1,055	10	4	33	8	882	23	95
ECOLOGY	1,003	4	0	8	10	749	148	84
ENTOMOLOGY/PARASITOLOGY	1,540	16	0	26	19	1,112	120	247
GENETICS	971	27	1	36	19	756	13	119
MICROBIOLOGY	4,287	68	6	117	56	3,122	396	522
NUTRITION	4,337	110	7	119	58	2,854	253	936
PATHOLOGY	1,706	37	5	43	17	1,274	125	205
PHARMACOLOGY	2,090	33	4	61	33	1,624	79	256
PHYSIOLOGY	2,061	45	6	48	23	1,698	47	194
ZOOLOGY	2,522	53	3	50	21	2,067	178	150
BIOSCIENCES, N.E.C.	913	32	0	35	14	625	136	71
HEALTH SCIENCES	44,449	1,692	170	960	938	34,974	2,629	3,086
ANESTHESIOLOGY	41	0	0	0	0	24	15	2
CANCER/ONCOLOGY	57	1	0	1	1	54	0	0
CARDIOLOGY	59	0	0	0	0	56	3	0
DENTISTRY	930	12	4	17	19	678	27	173
ENDOCRINOLOGY	54	4	1	1	1	40	1	7
GASTROENTEROLOGY	7	1	0	1	0	2	3	0
HEMATOLOGY	7	0	0	0	0	7	0	0
NEUROLOGY	332	1	0	12	2	272	26	19
NURSING	16,425	582	44	221	181	14,071	980	346
OBSTETRICS/GYNECOLOGY	24	2	0	1	0	11	0	10
OPHTHALMOLOGY	22	0	0	0	0	4	13	4
OTORHINOLARYNGOLOGY	17	0	0	0	0	17	0	0
PEDIATRICS	154	12	1	5	2	114	1	19
PHARMACEUTICAL SCIENCES	2,551	51	8	135	17	1,541	106	693
PREVENTIVE MEDICINE/ COMMUNITY HEALTH	6,757	292	47	299	326	4,700	204	889
PSYCHIATRY	129	12	0	4	6	89	7	11
PULMONARY DISEASE	14	1	0	0	0	8	4	1
RADIOLOGY	295	4	1	13	2	233	1	41
SPEECH PATHOLOGY/AUDIOLOGY	8,694	346	34	108	177	6,849	895	285
SURGERY	115	1	0	0	0	92	0	22
VETERINARY SCIENCES	483	25	0	6	2	333	3	114
CLINICAL MEDICINE, N.E.C.	794	54	3	31	14	579	23	90
HEALTH RELATED, N.E.C.	6,488	291	28	104	188	5,200	317	360
PSYCHOLOGY	40,205	1,655	136	442	1,487	30,390	4,684	1,411
SOCIAL SCIENCES	89,028	5,896	435	1,597	3,541	57,047	7,727	12,785
AGRICULTURAL ECONOMICS	2,227	60	10	26	44	1,305	19	763
ANTHROPOLOGY	5,948	74	37	51	120	4,444	660	562
ECONOMICS (EXCEPT AGRICULTURAL)	13,832	425	42	352	302	7,680	878	4,153
GEOGRAPHY	3,241	51	5	37	46	2,469	143	490
HISTORY AND PHILOSOPHY OF SCIENCE	256	2	1	1	2	212	2	36
LINGUISTICS	2,782	26	9	50	73	1,536	297	791
POLITICAL SCIENCE	29,613	2,537	137	546	1,757	17,835	3,528	3,273
SOCIOLOGY	7,634	581	48	149	336	4,902	364	1,254
SOCIOLOGY/ANTHROPOLOGY	1,065	122	7	8	25	708	29	166
SOCIAL SCIENCES, N.E.C.	22,430	2,018	139	377	836	15,956	1,807	1,297

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 25 -- FULL-TIME SCIENCE/ENGINEERING GRADUATE STUDENTS IN ALL INSTITUTIONS
BY HIGHEST DEGREE GRANTED AND SOURCE AND TYPE OF MAJOR SUPPORT: 1982

HIGHEST DEGREE GRANTED AND SOURCE OF MAJOR SUPPORT	TOTAL	FELLOWSHIPS	TRAINEESHIPS	RESEARCH ASSISTANT- SHIPS	TEACHING ASSISTANT- SHIPS	OTHER TYPES OF SUPPORT
ALL INSTITUTIONS:						
TOTAL, ALL SOURCES	255,959	21,639	15,561	53,294	58,820	106,645
FEDERAL, TOTAL	48,801	4,303	10,739	28,497	438	4,824
DEPT OF DEFENSE	6,063	204	34	3,476	0	2,349
DEPT OF HHS, TOTAL	16,524	929	9,181	5,873	110	431
NIH	11,148	681	4,824	5,353	49	241
OTHER HHS	5,376	248	4,357	520	61	190
NSF	9,318	1,309	91	7,775	27	116
ALL OTHER FEDERAL	16,896	1,861	1,433	11,373	301	1,928
INSTITUTIONAL SUPPORT	97,745	9,836	3,619	17,897	57,893	8,500
OTHER OUTSIDE SUPPORT, TOTAL ...	24,629	7,500	1,203	6,900	489	8,537
ALL OTHER U.S.	15,432	3,701	890	6,291	489	4,061
FOREIGN	9,197	3,799	313	609	0	4,476
SELF-SUPPORT	84,784	0	0	0	0	84,784
DOCTORATE-GRANTING:						
TOTAL, ALL SOURCES	237,676	21,130	15,006	52,094	56,221	93,225
FEDERAL, TOTAL	47,485	4,200	10,344	28,178	382	4,381
DEPT OF DEFENSE	5,954	201	33	3,467	0	2,253
DEPT OF HHS, TOTAL	16,178	925	8,954	5,796	102	401
NIH	10,994	677	4,752	5,281	49	235
OTHER HHS	5,184	248	4,202	515	53	166
NSF	9,219	1,293	73	7,743	24	86
ALL OTHER FEDERAL	16,134	1,781	1,284	11,172	256	1,641
INSTITUTIONAL SUPPORT	93,478	9,545	3,488	17,111	55,398	7,936
OTHER OUTSIDE SUPPORT, TOTAL ...	23,796	7,385	1,174	6,805	441	7,991
ALL OTHER U.S.	14,959	3,654	875	6,203	441	3,786
FOREIGN	8,837	3,731	299	602	0	4,205
SELF-SUPPORT	72,917	0	0	0	0	72,917
MASTER'S-GRANTING:						
TOTAL, ALL SOURCES	18,283	509	555	1,200	2,599	13,420
FEDERAL, TOTAL	1,316	103	395	319	56	443
DEPT OF DEFENSE	109	3	1	9	0	96
DEPT OF HHS, TOTAL	346	4	227	77	8	30
NIH	154	4	72	72	0	6
OTHER HHS	192	0	155	5	8	24
NSF	99	16	18	32	3	30
ALL OTHER FEDERAL	762	80	149	201	45	287
INSTITUTIONAL SUPPORT	4,267	291	131	786	2,495	564
OTHER OUTSIDE SUPPORT, TOTAL ...	833	115	29	95	48	546
ALL OTHER U.S.	473	47	15	88	48	275
FOREIGN	360	68	14	7	0	271
SELF-SUPPORT	11,867	0	0	0	0	11,867

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 26 -- SCIENCE/ENGINEERING GRADUATE STUDENTS IN ALL INSTITUTIONS
BY GEOGRAPHIC DISTRIBUTION: 1975-77 AND 1979-82 1/

DIVISION AND STATE	NUMBER							AVERAGE ANNUAL PERCENT CHANGE		
	1975	1976	1977	1979	1980	1981	1982	1975-81	1981-82	1975-82
TOTAL, ALL INSTITUTIONS	337,526	344,119	358,323	373,198	383,100	391,660	399,682	2.5	2.0	2.4
NEW ENGLAND	24,265	25,060	26,379	28,879	30,887	30,518	31,584	3.9	3.5	3.8
CONNECTICUT	4,866	5,090	5,476	6,392	6,781	6,650	7,261	5.3	9.2	5.9
MAINE	446	512	469	475	467	395	416	-2.0	5.3	-1.0
MASSACHUSETTS	15,278	15,888	16,792	18,284	19,864	20,263	20,506	4.8	1.2	4.3
NEW HAMPSHIRE	731	743	775	744	819	771	839	.9	8.8	2.0
RHODE ISLAND	1,880	1,746	1,753	1,870	1,823	1,868	1,922	-1.1	2.9	.3
VERMONT	1,064	1,081	1,114	1,114	1,133	571	640	-9.9	12.1	-7.0
MIDDLE ATLANTIC	63,693	62,201	64,924	65,951	68,094	72,904	73,202	2.3	.4	2.0
NEW JERSEY	11,049	10,227	10,280	10,316	10,242	10,461	10,227	-.9	-2.2	-1.1
NEW YORK	38,207	36,031	38,554	39,268	40,054	43,194	43,645	2.1	1.0	1.9
PENNSYLVANIA	14,437	15,943	16,090	16,367	17,798	19,249	19,330	4.9	.4	4.3
EAST NORTH CENTRAL	62,023	62,032	62,894	64,162	66,353	66,306	67,805	1.1	2.3	1.3
ILLINOIS	17,574	17,384	18,056	18,905	19,569	19,472	19,806	1.7	1.7	1.7
INDIANA	7,263	7,559	7,677	7,494	7,735	8,091	8,399	1.8	3.8	2.1
MICHIGAN	13,333	12,989	13,067	13,476	13,352	12,838	13,188	-.6	2.7	-.2
OHIO	14,810	15,466	15,650	16,127	16,893	17,069	17,405	2.4	2.0	2.3
WISCONSIN	9,043	8,634	8,444	8,160	8,804	8,836	9,007	-.4	1.9	-.1
WEST NORTH CENTRAL	22,705	23,536	24,144	24,698	25,649	25,293	25,864	1.8	2.3	1.9
IOWA	3,900	4,251	4,281	4,611	4,696	4,536	4,805	2.5	5.9	3.0
KANSAS	4,224	4,449	4,758	4,854	5,038	4,930	4,813	2.6	-2.4	1.9
MINNESOTA	5,658	5,361	5,186	5,619	5,686	5,702	5,754	.1	.9	.2
MISSOURI	6,152	6,414	6,397	6,102	6,462	6,202	6,520	-.1	5.1	.8
NEBRASKA	1,478	1,739	2,126	2,122	2,159	2,338	2,294	7.9	-1.9	6.5
NORTH DAKOTA	742	809	836	776	907	913	946	3.5	3.6	3.5
SOUTH DAKOTA	551	513	560	614	701	672	732	3.4	8.9	4.1
SOUTH ATLANTIC	46,049	47,746	49,743	53,420	54,322	56,487	57,318	3.5	1.5	3.2
DELAWARE	908	902	884	1,031	1,084	1,135	1,173	3.8	3.3	3.7
DISTRICT OF COLUMBIA	7,410	7,704	9,149	9,153	8,925	9,749	8,793	4.7	-9.8	2.5
FLORIDA	8,582	9,060	9,016	10,458	10,794	11,320	11,771	4.7	4.0	4.6
GEORGIA	5,405	5,509	5,504	5,802	6,103	6,203	6,399	2.3	3.2	2.4
MARYLAND	6,757	6,645	6,696	7,568	7,017	7,373	7,404	1.5	.4	1.3
NORTH CAROLINA	6,426	6,448	6,660	7,093	7,380	7,310	7,859	2.2	7.5	2.9
SOUTH CAROLINA	2,675	2,851	2,945	2,930	2,886	2,972	3,115	1.8	4.8	2.2
VIRGINIA	5,721	6,279	6,410	7,029	7,419	7,474	7,559	4.6	1.1	4.1
WEST VIRGINIA	2,165	2,348	2,379	2,356	2,709	2,951	3,245	5.3	10.0	6.0
EAST SOUTH CENTRAL	12,837	13,809	14,667	15,535	15,032	14,810	15,118	2.4	2.1	2.4
ALABAMA	2,602	3,097	3,530	4,058	3,847	3,778	3,901	6.4	3.3	6.0
KENTUCKY	2,704	2,766	3,065	3,253	3,212	3,369	3,465	3.7	2.8	3.6
MISSISSIPPI	1,996	2,173	2,190	2,185	2,130	2,052	2,183	.5	6.4	1.3
TENNESSEE	5,535	5,773	5,882	6,039	5,843	5,611	5,569	.2	-.7	.1
WEST SOUTH CENTRAL	26,451	28,104	30,454	31,849	32,487	32,770	35,417	3.6	8.1	4.3
ARKANSAS	1,108	1,346	1,391	1,488	1,495	1,642	1,779	6.8	8.3	7.0
LOUISIANA	3,126	3,242	3,431	3,807	3,874	4,299	4,574	5.5	6.4	5.6
OKLAHOMA	3,508	3,400	3,804	3,865	4,004	3,590	3,832	.4	6.7	1.3
TEXAS	18,709	20,116	21,828	22,689	23,114	23,239	25,232	3.7	8.6	4.4
MOUNTAIN	20,737	20,294	20,339	21,106	21,639	22,064	23,566	1.0	6.8	1.8
ARIZONA	4,791	4,707	4,729	5,027	5,228	5,593	6,474	2.6	15.8	4.4
COLORADO	7,715	7,155	6,839	6,916	6,928	6,934	6,968	-1.8	.5	-1.4
IDAHO	841	975	1,192	951	968	913	939	1.4	2.8	1.6
MONTANA	774	799	784	786	871	856	1,035	1.7	20.9	4.2
NEVADA	616	698	718	686	639	678	600	1.6	-11.5	-.4
NEW MEXICO	2,101	2,051	2,033	2,423	2,463	2,623	2,624	3.8	*	3.2
UTAH	3,218	3,214	3,369	3,666	3,882	3,737	4,124	2.5	10.4	3.6
WYOMING	681	695	675	651	660	730	802	1.2	9.9	2.4
PACIFIC	57,300	59,901	63,102	66,018	66,633	68,491	67,665	3.0	-1.2	2.4
ALASKA	220	287	434	456	492	541	564	16.2	4.3	14.4
CALIFORNIA	47,241	48,806	51,273	53,541	53,637	55,818	55,180	2.8	-1.1	2.2
HAWAII	1,484	1,496	1,543	1,453	2,004	2,012	2,053	5.2	2.0	4.0
OREGON	2,980	3,144	3,276	3,429	3,386	3,424	3,425	2.3	*	2.7
WASHINGTON	5,375	6,168	6,576	7,139	7,114	6,696	6,443	3.7	-3.8	2.6
OUTLYING AREAS	1,466	1,436	1,677	1,580	2,004	2,017	2,143	5.5	6.2	5.6

1/ DATA FOR 1978 ARE AVAILABLE FOR DOCTORATE-GRANTING INSTITUTIONS ONLY.
* LESS THAN 0.05 PERCENT CHANGE
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 27 -- DOCTORATE-GRANTING INSTITUTIONS RANKED BY
TOTAL SCIENCE/ENGINEERING GRADUATE ENROLLMENT: 1982

INSTITUTIONAL RANKING	TOTAL STUDENTS	FULL-TIME STUDENTS	PART-TIME STUDENTS	POST-DOCTORATES
TOTAL, ALL INSTITUTIONS	347,414	237,676	109,738	19,733
1 UNIVERSITY OF SOUTHERN CALIFORNIA	7,651	3,209	4,442	208
2 UNIVERSITY OF CALIF AT BERKELEY	5,400	5,400	0	380
3 UNIVERSITY OF WISCONSIN - MADISON	5,346	4,715	631	362
4 UNIVERSITY OF MINNESOTA	5,203	4,295	908	360
5 OHIO STATE UNIVERSITY	4,708	3,875	833	204
6 UNIVERSITY OF PITTSBURGH	4,643	2,391	2,252	121
7 UNIVERSITY OF ILLINOIS - URBANA	4,494	4,243	251	263
8 UNIVERSITY OF MICHIGAN	4,319	3,844	475	258
9 UNIV OF TEXAS AT AUSTIN	4,301	3,599	702	211
10 PURDUE UNIVERSITY	4,192	3,128	1,064	186
TOTAL, 1ST 10 INSTS.	50,257	38,699	11,558	2,553
11 UNIVERSITY OF CALIF AT LOS ANGELES	4,140	3,968	172	464
12 RUTGERS THE STATE UNIVERSITY	4,078	1,719	2,359	105
13 STANFORD UNIVERSITY	4,026	3,598	428	502
14 UNIVERSITY OF WASHINGTON	3,899	2,818	1,081	469
15 MASSACHUSETTS INSTITUTE OF TECHNOLOGY	3,886	3,688	198	402
16 TEXAS A & M UNIVERSITY	3,679	2,912	767	122
17 UNIVERSITY OF COLORADO	3,501	2,625	876	269
18 PENNSYLVANIA STATE UNIVERSITY	3,489	2,653	836	82
19 NORTHEASTERN UNIVERSITY	3,399	949	2,450	29
20 GEORGE WASHINGTON UNIVERSITY	3,308	774	2,534	11
TOTAL, 1ST 20 INSTS.	87,662	64,403	23,259	5,008
21 NEW YORK UNIVERSITY	3,296	1,310	1,986	180
22 UNIVERSITY OF ARIZONA	3,236	2,446	790	176
23 COLUMBIA UNIV MAIN DIVISION	3,159	2,300	859	356
24 MICHIGAN STATE UNIVERSITY	3,079	2,478	601	151
25 HARVARD UNIVERSITY	3,071	2,962	109	1,294
26 CORNELL UNIVERSITY	3,011	2,999	12	368
27 UNIVERSITY OF MARYLAND - COLLEGE PARK	2,996	1,732	1,264	152
28 UNIVERSITY OF TENNESSEE AT KNOXVILLE	2,826	1,844	982	70
29 UNIVERSITY OF FLORIDA	2,812	2,327	485	174
30 UNIVERSITY OF CALIF AT DAVIS	2,790	2,677	113	155
TOTAL, 1ST 30 INSTS.	117,938	87,478	30,460	8,084
31 FLORIDA INSTITUTE OF TECHNOLOGY	2,720	588	2,132	0
32 UNIVERSITY OF PENNSYLVANIA	2,642	2,036	606	340
33 IOWA STATE UNIVERSITY OF SCI & TECH	2,581	2,068	513	45
34 UNIV OF NORTH CAROLINA AT CHAPEL HILL	2,553	2,301	252	195
35 BOSTON UNIVERSITY	2,528	1,672	856	49
36 NORTH CAROLINA STATE UNIV AT RALEIGH	2,527	2,051	476	74
37 WEST VIRGINIA UNIVERSITY	2,456	1,159	1,297	34
38 ARIZONA STATE UNIVERSITY	2,424	1,387	1,037	63
39 UNIVERSITY OF CINCINNATI	2,422	1,396	1,026	56
40 UNIVERSITY OF CONNECTICUT	2,396	1,953	443	122
TOTAL, 1ST 40 INSTS.	143,187	104,089	39,098	9,062
41 VIRGINIA POLYTECHNIC INST AND STATE UNIV	2,373	1,848	525	48
42 SUNY - BUFFALO	2,296	1,528	768	117
43 INDIANA UNIVERSITY, ALL CAMPUSES	2,273	1,630	643	241
44 SUNY - STONY BROOK	2,261	1,634	627	189
45 UNIVERSITY OF KANSAS	2,257	1,969	288	117
46 SYRACUSE UNIVERSITY	2,172	1,197	975	48
47 UNIVERSITY OF MASSACHUSETTS AT AMHERST	2,162	1,541	621	90
48 WAYNE STATE UNIVERSITY	2,124	1,235	889	47
49 LONG ISLAND UNIVERSITY	2,096	339	1,757	1
50 GEORGIA INSTITUTE OF TECHNOLOGY	2,079	1,600	479	37
TOTAL, 1ST 50 INSTS.	165,280	118,610	46,670	9,997
51 SAN DIEGO STATE UNIVERSITY	2,068	1,188	880	14
52 UNIVERSITY OF MISSOURI - COLUMBIA	2,060	1,464	596	76
53 UNIVERSITY OF HAWAII AT MANOA	2,053	1,758	295	38
54 UNIVERSITY OF IOWA	2,031	1,628	403	207
55 UNIVERSITY OF OKLAHOMA	1,993	1,378	615	82
56 UNIVERSITY OF UTAH	1,951	1,460	491	127
57 NEW SCHOOL FOR SOCIAL RESEARCH	1,923	356	1,567	0
58 UNIVERSITY OF GEORGIA	1,870	1,637	233	90
59 UNIV OF TEXAS AT ARLINGTON	1,863	926	937	14
60 COLORADO STATE UNIVERSITY	1,831	1,385	446	90
TOTAL, 1ST 60 INSTS.	184,923	131,790	53,133	10,735

CONTINUED ON NEXT PAGE.

TABLE 27 -- DOCTORATE-GRANTING INSTITUTIONS RANKED BY
TOTAL SCIENCE/ENGINEERING GRADUATE ENROLLMENT: 1982

- CONTINUED

INSTITUTIONAL RANKING	TOTAL STUDENTS	FULL-TIME STUDENTS	PART-TIME STUDENTS	POST-DOCTORATES
61 CUNY GRADUATE SCHOOL AND UNIV CENTER	1,830	1,698	132	48
62 LOUISIANA STATE UNIVERSITY SYSTEM	1,823	1,427	396	89
63 UNIVERSITY OF SOUTH CAROLINA	1,814	1,075	739	44
64 UNIVERSITY OF WISCONSIN - MILWAUKEE	1,789	985	804	18
65 UNIVERSITY OF KENTUCKY	1,772	1,261	511	92
66 ILLINOIS INSTITUTE OF TECHNOLOGY	1,737	475	1,262	28
67 CASE WESTERN RESERVE UNIVERSITY	1,736	1,174	562	195
68 CATHOLIC UNIVERSITY OF AMERICA	1,713	712	1,001	19
69 AMERICAN UNIVERSITY	1,705	530	1,175	15
70 RENSSELAER POLYTECHNIC INSTITUTE	1,695	1,270	425	43
TOTAL, 1ST 70 INSTS.	202,537	142,397	60,140	11,326
71 COLUMBIA UNIV TEACHERS COLLEGE	1,690	700	990	0
72 YALE UNIVERSITY	1,686	1,638	48	577
73 TEXAS WOMAN'S UNIVERSITY	1,680	637	1,043	1
74 UNIVERSITY OF ILLINOIS - CHICAGO CIRCLE	1,661	1,190	471	30
75 FLORIDA STATE UNIVERSITY	1,650	1,188	462	61
76 OREGON STATE UNIVERSITY	1,622	1,454	168	46
77 NORTHWESTERN UNIVERSITY	1,590	1,441	149	160
78 UNIVERSITY OF VIRGINIA	1,529	1,323	206	167
79 UNIVERSITY OF HOUSTON	1,503	771	732	54
80 WESTERN MICHIGAN UNIVERSITY	1,491	651	840	10
TOTAL, 1ST 80 INSTS.	218,639	153,390	65,249	12,432
81 OKLAHOMA STATE UNIVERSITY	1,443	1,257	186	30
82 UNIVERSITY OF NEW MEXICO	1,442	912	530	31
83 JOHNS HOPKINS UNIVERSITY	1,424	1,294	130	389
84 UNIVERSITY OF CHICAGO	1,420	1,392	28	227
85 UNIVERSITY OF NEBRASKA - LINCOLN	1,403	1,106	297	49
86 CUNY HUNTER COLLEGE	1,385	944	441	1
87 WASHINGTON STATE UNIVERSITY	1,374	1,230	144	40
88 VIRGINIA COMMONWEALTH UNIVERSITY	1,370	926	444	105
89 POLYTECHNIC INSTITUTE OF NEW YORK	1,346	191	1,155	0
90 WASHINGTON UNIVERSITY	1,301	1,050	251	325
TOTAL, 1ST 90 INSTS.	232,547	163,692	68,855	13,629
91 FAIRLEIGH DICKINSON UNIVERSITY	1,285	260	1,025	0
92 UNIVERSITY OF LOWELL	1,278	380	898	0
93 KANSAS STATE UNIV OF AGR & APPLIED SCI	1,266	1,008	258	50
94 UNIVERSITY OF CALIF AT SANTA BARBARA	1,228	1,175	53	86
95 STEVENS INSTITUTE OF TECHNOLOGY	1,222	509	713	14
96 TEMPLE UNIVERSITY	1,212	861	351	105
97 UNIVERSITY OF CALIF AT SAN DIEGO	1,210	1,142	68	380
98 UNIVERSITY OF DELAWARE	1,173	734	439	12
99 UNIVERSITY OF SANTA CLARA	1,165	35	1,130	0
100 UTAH STATE UNIVERSITY	1,164	1,004	160	26
TOTAL, 1ST 100 INSTS.	244,750	170,800	73,950	14,302
101 UNIVERSITY OF CALIF AT IRVINE	1,163	1,037	126	122
102 PRINCETON UNIVERSITY	1,131	1,131	0	160
103 SOUTHERN ILLINOIS UNIV AT CARBONDALE	1,127	734	393	0
104 SUNY - BINGHAMTON	1,090	561	529	15
105 CARNEGIE-MELLON UNIVERSITY	1,081	879	202	82
106 UNIVERSITY OF LOUISVILLE	1,070	597	473	24
107 UNIVERSITY OF AKRON	1,061	527	534	12
108 PACE UNIVERSITY	1,058	250	808	0
109 DREXEL UNIVERSITY	1,056	388	668	18
110 CLEMSON UNIVERSITY	1,037	756	281	25
TOTAL, 1ST 110 INSTS.	255,624	177,660	77,964	14,760
111 UNIVERSITY OF ARKANSAS	1,035	809	226	21
112 UNIVERSITY OF PUERTO RICO - RIO PIEDRAS	1,031	674	357	3
113 NORTH TEXAS STATE UNIVERSITY	1,020	762	258	28
114 VILLANOVA UNIVERSITY	1,019	168	851	0
115 BRIGHAM YOUNG UNIVERSITY	1,009	712	297	18
116 UNIVERSITY OF ROCHESTER	1,005	859	146	165
117 TEXAS TECH UNIVERSITY	1,004	859	145	37
118 GEORGETOWN UNIVERSITY	998	679	319	31
119 UNIVERSITY OF MISSOURI - ROLLA	995	561	434	8
120 UNIVERSITY OF RHODE ISLAND	993	678	315	15
TOTAL, 1ST 120 INSTS.	265,733	184,421	81,312	15,086

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TABLE 27 -- DOCTORATE-GRANTING INSTITUTIONS RANKED BY
TOTAL SCIENCE/ENGINEERING GRADUATE ENROLLMENT: 1982

- CONTINUED

INSTITUTIONAL RANKING	TOTAL STUDENTS	FULL-TIME STUDENTS	PART-TIME STUDENTS	POST-DOCTORATES
121 THE UNIVERSITY OF ALABAMA IN BIRMINGHAM	986	646	340	119
122 UNIVERSITY OF MIAMI	961	725	236	44
123 UNIVERSITY OF DENVER	960	723	237	13
124 DE PAUL UNIVERSITY	957	385	572	0
125 UNIVERSITY OF SOUTH FLORIDA	955	556	399	12
126 CALIFORNIA INSTITUTE OF TECHNOLOGY	955	955	0	189
127 US NAVAL POSTGRADUATE SCHOOL	952	952	0	10
128 DUKE UNIVERSITY	950	885	65	250
129 LOMA LINDA UNIVERSITY	947	467	480	38
130 HOWARD UNIVERSITY	932	740	192	38
TOTAL, 1ST 130 INSTS.	275,288	191,455	83,833	15,801
131 UNIVERSITY OF CALIF AT SAN FRANCISCO	931	917	14	549
132 UNIVERSITY OF CALIF AT RIVERSIDE	927	881	46	81
133 AUBURN UNIVERSITY	922	758	164	14
134 OLD DOMINION UNIVERSITY	913	383	530	6
135 SUNY - ALBANY	907	558	349	32
136 OHIO UNIVERSITY	906	791	115	6
137 ADELPHI UNIVERSITY	897	304	593	99
138 WORCESTER POLYTECHNIC INSTITUTE	884	210	674	3
139 NORTHERN ILLINOIS UNIVERSITY	883	506	377	6
140 LOYOLA UNIVERSITY OF CHICAGO	874	426	448	19
TOTAL, 1ST 140 INSTS.	284,332	197,189	87,143	16,616
141 CUNY CITY COLLEGE	868	375	493	33
142 LEHIGH UNIVERSITY	863	506	357	20
143 NEW JERSEY INSTITUTE OF TECHNOLOGY	849	168	681	0
144 TULANE UNIVERSITY OF LOUISIANA	846	658	188	17
145 MISSISSIPPI STATE UNIVERSITY	844	640	184	9
146 CLEVELAND STATE UNIVERSITY	830	241	589	3
147 SOUTHERN METHODIST UNIVERSITY	821	289	532	8
148 NORTHERN ARIZONA UNIVERSITY	814	306	508	1
149 UNIVERSITY OF WYOMING	802	701	101	14
150 MEMPHIS STATE UNIVERSITY	792	440	352	2
TOTAL, 1ST 150 INSTS.	292,661	201,533	91,128	16,723
151 UNIV OF TEXAS AT DALLAS	788	424	364	17
152 GEORGIA STATE UNIVERSITY	783	482	301	10
153 UNIV OF ILLINOIS MED CENTER - CHICAGO	768	423	345	76
154 ST LOUIS UNIVERSITY	765	427	338	83
155 NEW YORK INSTITUTE OF TECHNOLOGY	748	175	573	0
156 BROWN UNIVERSITY	746	693	53	41
157 NEW MEXICO STATE UNIVERSITY	746	553	193	16
158 THE UNIVERSITY OF ALABAMA	743	577	166	12
159 UNIVERSITY OF MARYLAND - BALT PROF SCH	718	330	388	62
160 KENT STATE UNIVERSITY	718	495	223	0
TOTAL, 1ST 160 INSTS.	300,184	206,112	94,072	17,048
161 PORTLAND STATE UNIVERSITY	717	400	317	0
162 NOVA UNIVERSITY	716	415	301	0
163 ST JOHN'S UNIVERSITY	715	227	488	0
164 UNIVERSITY OF CENTRAL FLORIDA	710	280	430	0
165 UNIVERSITY OF OREGON	709	642	67	54
166 UNIVERSITY OF IDAHO	703	477	226	18
167 MICHITA STATE UNIVERSITY	695	312	383	0
168 VANDERBILT UNIVERSITY	689	631	58	146
169 UNIV OF TEXAS HLTH SCI CTR AT HOUSTON	685	351	334	0
170 RICE UNIVERSITY	677	648	29	70
TOTAL, 1ST 170 INSTS.	307,200	210,495	96,705	17,336
171 UNIVERSITY OF VERMONT & ST AGRIC COLLEGE	635	415	220	51
172 UNIVERSITY OF MISSOURI - KANSAS CITY	633	211	422	0
173 UNIV OF TEXAS AT EL PASO	630	252	378	6
174 WRIGHT STATE UNIVERSITY	629	354	275	19
175 UNIVERSITY OF TOLEDO	623	364	259	1
176 UNIVERSITY OF DAYTON	622	182	440	1
177 US INTERNATIONAL UNIVERSITY	615	339	276	0
178 UNIVERSITY OF NOTRE DAME	611	565	46	31
179 UNIVERSITY OF MISSISSIPPI	599	489	110	26
180 GEORGE MASON UNIVERSITY	599	161	438	0
TOTAL, 1ST 180 INSTS.	313,396	213,827	99,569	17,471

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TABLE 27 -- DOCTORATE-GRANTING INSTITUTIONS RANKED BY
TOTAL SCIENCE/ENGINEERING GRADUATE ENROLLMENT: 1982

- CONTINUED

INSTITUTIONAL RANKING	TOTAL STUDENTS	FULL-TIME STUDENTS	PART-TIME STUDENTS	POST- DOCTORATES
181 FORDHAM UNIVERSITY	590	301	289	4
182 NORTH DAKOTA STATE UNIVERSITY	587	493	94	14
183 MARQUETTE UNIVERSITY	575	353	222	8
184 UNIVERSITY OF NEBRASKA - OMAHA	573	220	353	0
185 BALL STATE UNIVERSITY	566	270	296	0
186 AIR FORCE INSTITUTE OF TECHNOLOGY	566	566	0	0
187 TUFTS UNIVERSITY	562	432	130	65
188 COLORADO SCHOOL OF MINES	559	415	144	0
189 UNIVERSITY OF NEW ORLEANS	558	287	271	6
190 UNIVERSITY OF SOUTHWESTERN LOUISIANA	557	403	154	0
TOTAL, 1ST 190 INSTS.	319,089	217,567	101,522	17,568
191 ATLANTA UNIVERSITY	556	417	139	69
192 MIAMI UNIVERSITY	528	432	96	7
193 YESHIVA UNIVERSITY	527	420	107	199
194 UNIVERSITY OF SOUTHERN MISSISSIPPI	510	354	156	5
195 UNIV OF NORTH CAROLINA AT GREENSBORO	506	221	285	0
196 UNIVERSITY OF NEW HAMPSHIRE	501	399	102	5
197 MONTANA STATE UNIVERSITY	498	478	20	22
198 EAST TEXAS STATE UNIVERSITY	487	201	286	0
199 EMORY UNIVERSITY	483	360	123	47
200 UNIVERSITY OF MONTANA	478	423	55	4
TOTAL, 1ST 200 INSTS.	324,163	221,272	102,891	17,926
TOTAL, ALL OTHER INSTS.	23,251	16,404	6,847	1,807

NOTE: INCLUDES MEDICAL SCHOOLS
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 28 — SCIENCE/ENGINEERING POSTDOCTORATES
IN ALL INSTITUTIONS BY FIELD: 1979-82

FIELD	NUMBER				AVERAGE ANNUAL PERCENT CHANGE	
	1979	1980	1981	1982	1979-81	1981-82
TOTAL, ALL FIELDS	18,137	18,443	19,679	19,772	4.2	0.5
ENGINEERING	1,067	981	1,042	983	-1.2	-5.7
AEROSPACE	32	20	14	25	-33.9	78.6
AGRICULTURAL	25	9	9	6	-40.0	-33.3
BIOMEDICAL	32	28	34	30	3.1	-11.8
CHEMICAL	192	183	171	175	-5.6	2.3
CIVIL	128	125	108	108	-8.1	.0
ELECTRICAL	142	123	191	178	16.0	-6.8
ENGINEERING SCIENCE	75	79	87	77	7.7	-11.5
INDUSTRIAL	7	16	13	9	36.3	-30.8
MECHANICAL	143	137	131	131	-4.3	.0
METALLURGICAL/MATERIALS	209	172	194	168	-3.7	-13.4
MINING	5	3	16	10	78.9	-37.5
NUCLEAR	20	22	26	18	14.0	-30.8
PETROLEUM	6	6	2	4	-42.3	100.0
ENGINEERING, N.E.C.	51	58	46	44	-5.0	-4.3
PHYSICAL SCIENCES	4,051	4,276	4,476	4,297	5.1	-4.0
ASTRONOMY	129	141	132	148	1.2	12.1
CHEMISTRY	2,621	2,720	2,879	2,819	4.8	-2.1
PHYSICS	1,299	1,400	1,450	1,328	5.7	-8.4
PHYSICAL SCIENCES, N.E.C.	2	15	15	2	173.9	-86.7
ENVIRONMENTAL SCIENCES	318	311	345	339	4.2	-1.7
ATMOSPHERIC SCIENCES	34	43	46	33	16.3	-28.3
GEOSCIENCES	219	195	218	218	-2.0	.0
OCEANOGRAPHY	54	58	68	79	12.2	16.2
ENVIRONMENTAL SCIENCES, N.E.C.	11	15	13	9	8.7	-30.8
MATHEMATICAL/COMPUTER SCIENCES	200	205	148	241	-14.0	62.8
COMPUTER SCIENCE	75	62	49	58	-19.2	18.4
MATHEMATICS AND APPLIED MATHEMATICS	102	122	88	169	-7.1	92.0
STATISTICS	23	21	11	14	-30.8	27.3
LIFE SCIENCES	11,644	11,756	12,864	13,101	5.1	1.8
AGRICULTURAL SCIENCES	215	239	284	283	14.9	-.4
BIOLOGICAL SCIENCES	6,821	7,066	7,669	7,784	6.0	1.5
ANATOMY	256	250	261	280	1.0	7.3
BIOCHEMISTRY	1,511	1,548	1,673	1,645	5.2	-1.7
BIOLOGY	994	1,010	891	961	-5.3	7.9
BIOMETRY/EPIDEMIOLOGY	68	72	64	53	-3.0	-17.2
BIOPHYSICS	103	154	156	131	23.1	-16.0
BOTANY	163	220	240	298	21.3	24.2
CELL BIOLOGY	328	387	506	487	16.2	-3.8
ECOLOGY	18	22	44	28	56.3	-36.4
ENTOMOLOGY/PARASITOLOGY	104	119	133	119	13.1	-10.5
GENETICS	231	251	290	311	12.0	7.2
MICROBIOLOGY	869	879	984	1,043	6.4	6.0
NUTRITION	170	129	171	138	.3	-19.3
PATHOLOGY	429	477	468	544	4.4	16.2
PHARMACOLOGY	633	624	755	796	9.2	5.4
PHYSIOLOGY	678	668	758	674	5.7	-11.1
ZOOLOGY	218	209	221	223	.9	.9
BIOSCIENCES, N.E.C.	48	47	54	53	6.1	-1.9
HEALTH SCIENCES	4,608	4,451	4,911	5,034	3.2	2.5
ANESTHESIOLOGY	62	54	66	72	3.2	9.1
CANCER/ONCOLOGY	110	133	119	98	4.0	-17.6
CARDIOLOGY	298	334	333	384	5.7	15.3
DENTISTRY	119	86	143	251	9.6	75.5
ENDOCRINOLOGY	105	120	150	142	19.5	-5.3
GASTROENTEROLOGY	103	123	113	124	4.7	9.7
HEMATOLOGY	151	148	153	153	.3	.0
NEUROLOGY	327	346	352	323	3.8	-8.2
NURSING	7	9	8	0	6.9	-100.0
OBSTETRICS/GYNECOLOGY	143	122	113	105	-11.1	-7.1
OPHTHALMOLOGY	138	122	144	151	2.2	4.9
OTORHINOLARYNGOLOGY	35	46	41	35	8.2	-14.6
PEDIATRICS	511	433	587	551	7.2	-6.1
PHARMACEUTICAL SCIENCES	235	233	243	238	1.7	-2.1
PREVENTIVE MEDICINE/COMMUNITY HEALTH	112	161	135	152	9.8	12.6
PSYCHIATRY	292	296	292	292	.0	.0
PULMONARY DISEASE	143	127	122	143	-7.6	17.2
RADIOLOGY	138	156	155	185	6.0	19.4
SPEECH PATHOLOGY/AUDIOLOGY	35	16	17	7	-30.3	-58.8
SURGERY	281	308	307	340	4.5	10.7
VETERINARY SCIENCES	22	52	31	51	18.7	64.5
CLINICAL MEDICINE, N.E.C.	1,145	924	1,177	1,132	1.4	-3.8
HEALTH RELATED, N.E.C.	96	102	110	105	7.0	-.5
PSYCHOLOGY	454	474	471	523	1.9	11.0
SOCIAL SCIENCES	403	440	333	288	-9.1	-13.5
AGRICULTURAL ECONOMICS	6	8	6	10	.0	66.7
ANTHROPOLOGY	44	42	31	35	-16.1	12.9
ECONOMICS (EXCEPT AGRICULTURAL)	99	146	30	13	-45.0	-56.7
GEOGRAPHY	5	15	23	5	114.5	-78.3
HISTORY AND PHILOSOPHY OF SCIENCE	11	15	21	14	38.2	-33.3
LINGUISTICS	30	5	47	47	25.2	.0
POLITICAL SCIENCE	29	30	46	44	25.9	-4.3
SOCIOLOGY	115	99	90	89	-11.5	-1.1
SOCIOLOGY/ANTHROPOLOGY	4	3	0	2	-100.0	**
SOCIAL SCIENCES, N.E.C.	60	28	39	29	-19.4	-25.6

SOURCE: NATIONAL SCIENCE FOUNDATION